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2595
ANDREJ ŠKUFCA & NEJA ZORZUT
Editorial

2599
CARL OLSSON
Absolute Freedom
(The End of History)

2613
ALEXANDER WILSON
Parthenogenesis

2625
MAKS VALENČIČ
Psychotic Accelerationism

2635
NEJA ZORZUT
NOCLIP

2645
PATRICIA REED
Site-Specificity for Inexistent Worlds:
On Post-Critical Exaptation

2657
KAJA KRANER
Adaptation of Bodies and Matter Through
the Perspective of Form-Creating Paradigms

2671
MICHAL NOVOTNÝ
Museum, or a Tombstone

EDITORIAL

Andrej Škufca
& Neja Zorzut

We are not sure whether they already exist, but we know we need to build them.

Artificial objects, bound together with their surroundings into a string infra-structure. Spreading into their surroundings by employing the entropy of their materials, the topology of their location, the vegetation, the changing weather patterns, and other such variables. Objects forced into adapting by the changes in the atmosphere. Something that is compelled to conform if it is to continue to exist, trapped in a relationship where everything is already being shifted. Each opportunity for intrusion compromises the object, and differences in the concentrations of these opportunities lead to irregularities in the densities of their distributions. Territories lose the last semblance of domesticity. The host and the guest become equivalent and interchangeable, their form seized by their extract that reduces and adapts them. This reduction-adjustment is not a segregation but a concentration of the extracted detail spreading through the entire atmosphere. Brutal demands adjust the objects' shapes. Here, adaptation is an economy of interests, a form built out of the necessity for survival. Relationships between bodies and the environment manifest on surfaces—particles in interstices. Forms deviate from strict spatial conformity and embody a nuanced interplay. Adaptation is an endless process, a condensed dance of forces where forms are reshaped and reconfigured in response to changing conditions. This is not a passive surrender but an active engagement with the environment, a negotiation where the boundaries are constantly tested and transformed. A negative space that absorbs and is itself absorbed into its environment. Reactors. And heresies of specializations. A merged multiplicity fragments.

Carl Olsson

ABSOLUTE FREEDOM

(The End of History)

Immanuel Kant's Analogy

What does it mean to make our thinking free? In October 1786, Immanuel Kant finally responded to a public controversy between Jacobi and Moses Mendelssohn concerning the status of rational faith.[01] His response was developed by means of a conceptual transposition illustrating how the faculty of reason can make use of maxims to adequately constrain its supersensible cognitions and avoid falling into illusion or fancy. Reason must orient itself or risk succumbing to idle speculations that would ultimately make it amount to nothing at all.

At this point, Mendelssohn had already appealed to the need to orient faith through reason in his exchange with Jacobi,[02] but Kant reinterpreted the concept of orientation to bring it into accord with his own doctrine, where he clearly departs from its geographical use. Orientation in thinking can be understood on the model of orientation in geographical space.

> *In the proper meaning of the word, to orient oneself means to use a given direction (when we divide the horizon into four of them) in order to find the others—literally, to find the sunrise.*[03]

But in order to find the sunrise, one requires something else too, namely the "feeling of a difference in my own subject, namely, the difference between my right and left hands".[04] The difference between left and right provides a subjective principle for orienting ourselves. Without this ability, one could simply rearrange a scene—like a room or a starry sky—by moving everything from left to right and vice versa while retaining its symmetry and one would not be able to tell the difference. Nor would one be able to tell one's right hand from one's left. The problem of incongruous counterparts was a longstanding point of interest for Kant, but what makes his Orientation essay so peculiar is what he made of the source of the ability to distinguish between left and right in connection to the relationship of said distinction to the analogous ability of thought to orient itself. Indeed, he went on to say that "the faculty of making distinctions through the feeling of right and left comes naturally to [our] aid—it is a faculty implanted by nature but made habitual through frequent practice".[05]

This is a remarkable statement coming from Kant. The incongruity of left and right parts had served as one of the motivations for distinguishing between sensibility and understanding that precipitated the *Critique of Pure Reason.* In the latter, space is given the role of the *a priori* form of outer sense.[06] Space

01 KANT, Immanuel, "What Does It Mean to Orient Oneself in Thinking?", in: WOOD, Allen W. & GIOVANNI, di George (eds.), *Religion and Rational Theology,* Cambridge: Cambridge University Press, 1996, Ak 8: pp. 133–146.
02 WOOD, Allen W., GIOVANNI, di George, "Translator's Introduction", in: *Religion and Rational Theology,* Cambridge: Cambridge University Press, 1996, p. 5.
03 KANT, Immanuel, "What Does It Mean to Orient Oneself in Thinking?", Ak 8: p. 134.
04 Ibid, Ak 8: pp. 134–135.
05 Ibid, Ak 8: p. 135.
06 KANT, Immanuel, *Critique of Pure Reason,* Cambridge: Cambridge University Press, 1998, A26/B42.

is that in virtue of which differences can be sensed. It is therefore strange that the ability to tell the difference between right and left was seen to have been "implanted by nature" in the Orientation essay. Even if it has mere subjective validity, if our ability to orient ourselves is given by nature, it definitely has to be *a posteriori*—downstream from the conditions that make nature sensible—if it is a *feeling,* but that seems unlikely if said ability actually *inheres* in the subject. Had the ability to differentiate between left and right been implanted by nature and granted transcendental status, however, Kant would find himself facing a "transcendental naturalism". The determining subject would itself be determined by nature in the last instance which would be at odds with the crucial distinction between phenomena and noumena.[07] That the faculty of telling right from left is given the status of a "feeling" does precisely not help the matter, especially when the concept is extended via analogy to the case of reason. Does Kant mean to say that reason *feels?*

In a minimal sense it does not. Insofar as "to orient oneself in thinking in general means: when objective principles of reason are insufficient for holding something true, to determine the matter according to a subjective principle",[08] "feeling" is a kind of shorthand. Orientation in thinking just means that reason must restrain itself to be free, but doing so still requires responding to a "felt need" to restrict its ambition with the use of subjective maxims. Properly speaking, this feeling is "effected" by reason itself through its "drive for cognition", as Kant remarks in a footnote.[09] It is not reason that feels, and it would be better to say that reason responds to a feeling it has created or engendered. It is when it comes to interpreting the engendering and the response to it that the analogy to orientation in space comes into play. At first glance, the capacity to distinguish between left and right does not survive the translation to the case of orientation of reason as Kant defines the latter, but nevertheless, the concept of orientation remains intelligible firstly in terms of its geographical use. Kant invokes orientation in space to help us interpret the use of maxims: the self-discipline of reason is therefore an art that finds its model in an empirical concept that supposes an implantation into the subject of something that comes from nature.

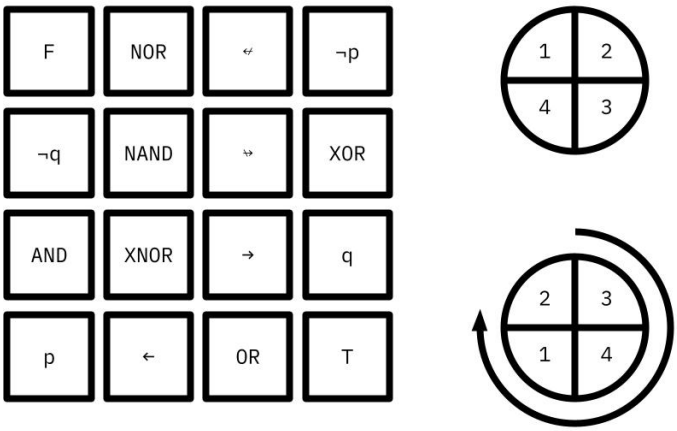
As a consequence, the engendering and its interpretation become subject to a deeper set of conceptual associations that have been inherited from orientation in space. The problem here is twofold. First, it would seem that reason, insofar as it has a "drive for cognition", is also subject to a deeper set of constraints that belong to nature. The picture of reason restraining itself so as to not squander its freedom is the image of a goldfish trying to keep its bearings in a very small bowl.

07 Kant explicitly argues against this possibility when it comes to what ought to be done in the Dialectic: "Whether reason is not, in the actions through which it prescribes laws, itself again determined by other influences, and whether that which, in relation to sensuous impulses, is entitled freedom, may not, in relation to higher and more remote operating causes, be nature again, is a question which in the practical field does not concern us, since we are demanding of reason nothing but the rule of conduct; it is a merely speculative question, which we can leave aside so long as we are considering what ought or ought not to be done." (KANT, *Critique of Pure Reason,* A803/B831)
08 KANT, Immanuel, "What Does It Mean to Orient Oneself in Thinking?", Ak 8: 136n.
09 Ibid, p. 139n.

Second, the heuristic of orientation and the ease with which it comes to mind suggests that there is a structural resemblance between the constraints that obtain in both geography and reason. The analogical hermeneutic of orientation effectively traces a model of thought's good conduct from manipulations of the human body in space, a body that is capable of navigating a terrestrial environment divided into cardinal directions according to custom: a body that faces in one direction. The concept of orientation thus evokes a strange isomorphism between the forward-facing subject and the proper behavior of thought, as if the proper use of reason depended on the literal shape of the subject. Let us take this connection as the starting point for a study in speculative anthropology that takes note of beliefs across cultural history, evolutionary biology, and formal images of thought.

Logic and the Original Concept of Orientation

About 200 years after Kant, the idiosyncratic timespace sociologist Bernd Schmeikal-Schuh proposed a peculiar hypothesis. The sixteen truth functions of the *n*=2 table of Boolean logic could be derived from the structure of an "original concept" of orientation in space.[10] He illustrated the idea with interpretations of cultural history, notably modeled on ancient quadripartite stone tablets discovered in Hungary whose different rotations map onto the different truth functions.



By rotating the stones in 90° increments from a starting position, it is possible to derive eight movements, counting clockwise and anti-clockwise moves. If a stone is turned upside down, and the "inverted" moves are given their own identities, there is a total of sixteen different moves available. Each move can be granted its own identity that may correspond to a logical operation. For example, moving a stone 90° clockwise from the starting position might express the operation F (contradiction), whereas moving it 270° clockwise might express the operation ↚

10 SCHMEIKAL-SCHUH, Bernd, "Logic from space", in: *Quality and Quantity,* 27(2), 1993, pp. 117–137.

(converse nonimplication), and so on. The operations can of course be carried out with any quadripartite object, such as two crossed sticks.

Schmeikal-Schuh's speculative conclusion is that logic, the laws of thought, could plausibly have been learned or developed from an original understanding of orientation in space that utilized the stones as tactile learning aids or even as rudimentary computational operations.[11]

The Kantian upshot of Schmeikal-Schuh's conclusion is of course that one does not need recourse to any external object to derive logic from space. In virtue of its basic symmetry, a top-down view of our own bilateral bodies reveals that they already constitute diagrams of the rules of reasoning. By rotating our own bodies in the cardinal directions of terrestrial space, we can think of ourselves as expressing logical operations. With this in mind, one may think that noögeny is guided by bodily symmetry, impacting the cultural acquisition and development of logical practices over time. Taken to its farthest extent, one could even trace a speculative cultural and natural history to ground and validate Kant's analogy, from the advent of the bilaterian body more than 550 million years ago. Even though other types of logic have been invented or discovered, it is plausible that they are subject to ergonomic factors, such that alternatives can only be built on top of Boolean operations enabled by deep-seated, bodily constraints. It bears remembering that the human body is itself the result of an evolutionary history that has transpired under the intractable conditions provided by the Earth itself.[12] The bilaterian body is the cross on which our minds are crucified.



Accordingly, philosophy discovers itself in the middle of an evolutionary process. The symmetry of the philosopher's body contributed to shaping the bedrock of his or her thought, with the spatial structure of experience serving as an intermediary. The thinkable is thinkable in virtue of its symmetrical substrate. Let us entertain this as a postulate with generic validity. In animals, thought follows orientation

11 Ibid, p. 118.

12 OLSSON, Carl, "Peak Face", *Urbanomic,* 2023, https://www.urbanomic.com/document/peak-face/. See also BUEY GONZÁLEZ, Maria, ABBOTT, M. C. & OLSSON, Carl, "Peak Face", *The Terraforming 2021*, 2021, https://peakface.strelka.institute/.

follows symmetry which is entrenched via the environment; noötype follows phenotype follows topos. The history of thought is a geohistory. The corollary is that the environment is where thought can intervene to reengineer itself; a practice that is more difficult and more profound than its ability to discipline itself within given constraints. A goldfish remodels its bowl to change itself.

Let us consider the constraints on what is thinkable in the language of negative freedom. Throughout the history and prehistory of its evolution, thinking has been set on a fixed path. Negative freedom describes liberty from restraint or external influence. In evolution, there is no such thing as absolute freedom since life is always bound to its environment at different levels of organization; and in the same way, thinking is always bound to some sort of substrate, whether it is the neurochemical basis of human thought or some hypothetical machinery that is subject to its own unique constraints. Freedom is always relative. The secret line that runs between Kant and Schmeikal-Schuh is that the symmetry of the human body is a salient determinant of how thought thinks. The shape of the body is recognized as a limiting factor on any desire for increasing the autonomy of thought, one which cannot simply be negotiated from "outside" since we, as thinkers, are deeply embedded in it ourselves. Turning against these restraints on the veritable form of what thought can think would be to turn against some of the most entrenched constraints there are; that is, the symmetry of the bilaterian body itself. It seems absurd. But history is far from over.

Thought Experiment: A Game of Developmental Lock Picking

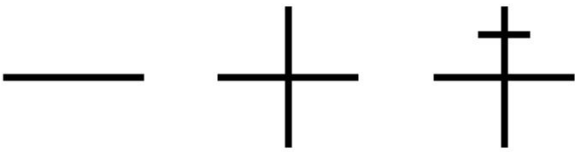
So far, we have gathered the components required to introduce a little game: a demand for thought to acquiesce to the body, a cultural history of how thought has discovered its acquiescence, and a natural history of the conditions that made bondage necessary. Three interconnected perspectives on the connection between orientation and thought.

Let us now imagine a future culture that, taking the aforementioned perspectives seriously, decides to maximize the degree of negative freedom of thought enjoyed by its members. Knowing what we know, they quickly translate their decision to a eugenic project to deliberately and fundamentally remodel the human phenotype over many generations, focusing on breaking the entrenched symmetry that binds them to the cross. The challenge they face is massive, but their task may be less insurmountable than it may seem at first, provided they show sufficient dedication.

What is required to reshape the conditions of thought can be understood through Wimsatt and Schank's developmental lock model.[13] In a developmental system such as is common in animal ontogeny, upstream determinations are more constraining than their downstream dependents because the former have more things that hinge on them being in place. When building a house, the third

13 SCHANK, Jeffrey C. & WIMSATT, William C., "Generative Entrenchment and Evolution", in: *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association,* 1986, pp. 33–60.

floor has fewer dependents than the second, which has fewer than the first. A genetic mutation that impacts the basic development of the spine is very unlikely to result in reproductively viable offspring, whereas a mutation that results in a missing digit is likely to be less disastrous. On a phylogenetic level, developmental locks are a conservative force that limits the number of viable evolutionary trajectories at any given time in a way that can result in path dependencies. Developmental locks limit the number of viable mutations. The model has also been proposed as a contributing explanation for von Baer's laws, according to which evolution tends to proceed from the general to the specific (arms before fingers; legs before toes). Lineages that have evolved organs or features that develop early in ontogenesis are unlikely to lose these organs in the future since so much depends on their functioning. Developmental locks can therefore be considered limiting factors for evolvability. In the bilaterian clade, to which well over 90% of extant animal species belongs, planar symmetry is usually one of the first macro-level features to develop during ontogenesis;[14] and almost everything else depends on it. It has been in place for roughly half a billion years.

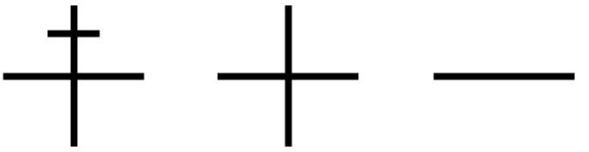


Faced with such deep entrenchment in their quest to liberate thought from its constraints, the ethicists of our future culture need to conceive of a means to unlock their basic morphology. They decide to interpret their project as a "game of developmental lockpicking" to be realized through a carefully planned practice of niche reconstruction. The developmental lock model allows the players to consider their own bodies from the point of view of entrenchment, as a series of doors that can be unlocked. The means they have at their disposal are genetic engineering, planned breeding, and iterative modification of their environmental niche to create an intergenerational pathway along which the human evolutionary trajectory can be reoriented. As they progress, they will likely have to use all their means to reach their end: a new corporeal symmetry that will usher in an unending era of maximally free thought.

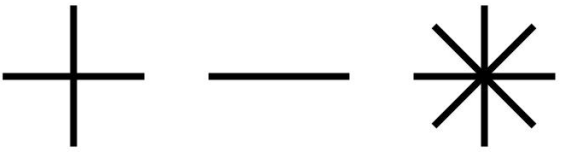
14 RASMUSSEN, Nicolas, "A New Model of Developmental Constraints as Applied to the Drosophila System", in: *Journal of Theoretical Biology,* 127(3), 1987, pp. 271–299.

The environment is gradually modified to select a new adaptive picture. The players begin by working backward, from less entrenched traits, to remove downstream dependencies from upstream determinants, starting with the elimination of traits like digits, limbs, and sensoria. Rinse and repeat.

And repeat.



As the game proceeds, slowly and with good fortune, even the most thoroughly entrenched determinations prove tractable. After having rendered most organs superfluous for their new environments and by winning the genetic lottery that eliminates the vestiges, the players face greater challenges, such as the Earth's gravitational influence and magnetic field, if they are to avoid falling into the trap of a *local* maximum all over again.



The players depart for elsewhere, one step at a time.

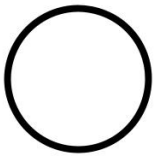
They know that freedom of thought must remain constrained by some corporeal form. Nature trades in few absolutes. They ask themselves: Is there a *global* maximum? They arrive at a conclusion.

True freedom is freedom from restraint. The terrestrial habitat of our ancestors bound thinking to a local maximum, guiding thought onto the bilaterian cross. Indeed, the ancestors modified their habitats to fit the cross, coming to depend on their modifications, in turn, only to deepen their crucifixion. They may have been free *to act,* but they were never free *from* the cross and its consequences. It follows that *any* habitat will have similar effects and force thought into a suboptimal shape. No matter how autonomous one becomes, there will always be a limit that forces thought to conform. It can even be said that autonomy correlates with bondage; liberty with reliance on scaffolds that need to be in place. Such is the useless freedom of standing on a ladder. None of these faux liberties amount to the infinite weakness that is true self-determination:

> Proposition: *Maximizing negative freedom in nature means to become adapted not to all environments but to none.*

The players' goal is a stable symmetry from where there is nowhere to go; where environmental constraints approach 0, rendering the bodily support of thinking permanent, intractable, inescapable on pains of maladaptive mutations that would mean death. They seek a truly stable state that yields the highest freedom of thought. The end of history. What remains when *everything* is taken away and *every* direction is equal?

The solution to the game of developmental lockpicking is a reorientation of human evolution toward the renunciation of orientation and its hold on thought. The final result must be the perfect form, adapted to the void, forever unchanging. And so, to reach the apex of freedom in nature, the players must strive for their far-off descendants to become:



Homo sapiens sphera, the Human Noöspheres

In the void between stars where there is nothing.

H. sapiens sphera is the end result of a thought turning against its own constraints within the bounds of nature, renouncing everything that binds it. It is equipped with a body that falls into itself, held by its own mass. It has a mind that lacks orientation. All its directions are equal. It can do nothing but contemplate its freedom in a state of perfect self-determination. It is free, like its ancestors could only be when they turned in the drunken stupor of their dance halls—and who would not wish for true liberty?

Recognizing the image of freedom could be the most convincing reply to Fermi's quandary: in the void between stars where there is nothing besides liberty. That is where we should search, since that is where we must eventually go ourselves. Extragalactic solipsism is an inescapable attractor for any self-determining mind; whether it reaches it through eugenic transformation or more direct means. The sphere is a stable refuge for maximally free thought in the void between stars.

As for us who retain our bilateral form, *H. sapiens sphera* is the projective result of deriving implications from speculative anthropology. *H. sapiens sphera* is a reminder that our history is not over; that until we find a stable state, we will suffer from being on a ladder that leads us nowhere. Such a stable state exists. *H. sapiens sphera* will be the living result of a game "we" can play in a culture that values freedom above all and accepts evolvability as not just an inescapable fact but as the proper domain of ethics. Success is obviously less than certain.

We cannot be perfect.

Unless we are round.

Postscript: A Brief History of Enspherement as Finale

A sphere once formed continues round and true.
—Marcus Aurelius, *Communings,* Bk. XVIII[15]

But what is greatest is round; it has no qualities.
—F. W. J. Schelling, *Weltalter,* 1811[16]

It is hard to resist the notion that the path to absolute freedom would be anything other than the result of a psychosomatic or "materialized"[17] psychosis perpetuated over many generations. The act of turning human offspring into spheres has been a surprisingly common motif in narratives about the end of history. What follows is a selective review of some examples. The would-be progenitors of *H. sapiens sphera* may draw inspiration from any number of them. In each case, the real spherification of the human body cross should be seen as the corporeal consummation of the idealist philosophies proposing that history can be brought to a close.

15 AURELIUS ANTONINUS, Marcus, *The Communings with Himself of Marcus Aurelius Antoninus,* Cambridge, MA: Harvard University Press, 1916, Bk. VIII, par. 41.
16 SCHELLING, Friedrich Wilhelm Joseph, *The Ages of the World (1811),* Albany, NY: SUNY Press, p. 71.
17 FERENCZI, Sandór, "'Materialization' in Globus Hystericus", in: *Further Contributions to the Theory and Technique of Psycho-Analysis,* London, Maresfield Reprints, 1980, pp. 104–105.

The French psychiatric theorist Eugène Minkowski interpreted schizophrenia as a failure to inhabit time, as a preference for the static, unmoving, and regular. The sphere is noted as a salient object of the schizophrenic patient's *"morbid geometrism"*[18] because of its perfection.

> *[H]e is persuaded that "everything in life … [is] reducible to mathematics"; this leads him to mathematical formulas and geometries; there is geometry in our body, and from this point of view one is led to wonder whether the perfect form for the body would not be the "spherical form", a form which, from the geometric point of view (but only from this point of view), attains a high degree of symmetry and harmony.*[19]

The same morbid focus recurs on a grand scale in Anno Hideaki and Tsurumaki Kazuya's *The End of Evangelion.*[20] The consummation of Supplementation[21] makes everyone fall inward to their origin, coating the Earth in biotic slime as the terminus of human evolution, while their souls are returned to their spherical womb.

If Anno and Tsurumaki successfully narrate the implosive ensphering of humanity, a minor character from Stanisław Lem's *The Futurological Congress* predicts the opposite. As reported by the Swiss congressional delegate, Professor Dringenbaum, humanity may just lift itself into exponential expansion.

> *Professor Dringenbaum went on with his lecture, which was fairly pessimistic in tone, for it maintained that the next phase of our civilization would be cannibalism. He cited several well-known American theoreticians, who had calculated that, if things on Earth continued at their present rate, in four hundred years humanity would represent a living sphere of bodies with a radius expanding at approximately the speed of light.*[22]

One would imagine that such an explosive expansion would quickly collapse inward under its own weight, with effects reminiscent of the post-Supplementation sea.

A suitably bold question is whether it may be that Lem's solipsistic ocean-planet Solaris[23] is the intelligent outcome of a spherification event that has erased the boundaries between some previously self-enclosed inhabitants of unknown

18 MINKOWSKI, Eugène, *Lived Time,* Evanston: Northwestern University Press, 1970, p. 277.
19 Ibid, p. 279.
20 *Neon Genesis Evangelion: The End of Evangelion,* ANNO, Hideaki & TSURUMAKI, Kazuya (directors), Toei Company, 1997.
21 The official English translation of the planetary-scale ensphering of mankind is the "Human Instrumentality Project", a term that is borrowed from Cordwainer Smith. The Japanese "補完" *(hokan)* carries the sense of complementation, supplementation or completion, which honestly seems far more suitable.
22 LEM, Stanisław, *The Futurological Congress (From the Memoirs of Ijon Tichy),* New York: The Seabury Press, 1974, p. 24.
23 LEM, Stanisław, *Solaris,* San Diego: Harcourt Inc., 1970.

origin. These oceanic cases suggest a fundamentally different, dissolvent solution to the problem compared to the schizoid prospect of *H. sapiens sphera* which, as we have seen, is based on retaining human individuality.

Indeed, the vast literature on speculative evolution contains occasional references to sphere-like posthumans. In a work first published under the penname Nemo Ramjet, C. M. Kosemen describes our far-off descendants that have resulted from an evolutionary radiation event precipitated by a war between Earth and Mars. One of these subspecies, which Ramjet terms the "deranged" Ruin Haunters, chose rapid spherification in response to the deadly expansion of their Sun. But in stark contrast to *H. sapiens sphera,* the Ruin Haunters opted for technological ascension by constructing

> *floating spheres of metal that moved and molded their environment through subtle manipulations of gravity fields. In earlier versions the spheres still cradled the organic brains of the last Haunters. But in successive generations, ways of containing the mind within quantum computers were devised, and the transformation became absolute. The Ruin Haunters were replaced by the completely mechanical Gravital.*[24]

As Kosemen's illustrations reveal, the mechanical phylum born by the Haunters appears to have retained a vestigial bilateral symmetry for their post-biological bodies, with circular openings creating a kind of visage. For the 21st century mind, it still remains almost inconceivable that we might one day overcome our forward-facing posture, which may well amount to our deepest bias. It is considerably easier to picture a humanoid robot than a genuinely faceless human.

The posthumous condition appears to break the moratorium on human spheres, as though the face is no longer needed in death. There are many examples of spherical monuments intended for the storage or glorification of individuals—usually those seen as the greatest minds. It could be that the connection between the sphere and the end of the human is a reverberation of an unconscious recognition that the sphere marks the highest degree of freedom and perfection. But as of yet, it is only in death we may find true liberty, and it has remained the privilege of architects and sculptors to succeed where biologists and philosophers have failed.

A well-known example from the speculative architecture of the late 18th century: Étienne-Louis Boullée published plans for a cenotaph to honor Isaac Newton. The spherical monument would dwarf the grand pyramids of Giza and contain an (empty) tomb for the scientist. Unsurprisingly, the grandiose structure has never been built, perhaps in part because Boullée's presentation of the project was so thoroughly steeped in megalomania.

24 KOSEMEN, C. M., *All Tomorrows: A Billion Year Chronicle of the Myriad Species and Varying Fortunes of Man,* 2006, p. 88, http://www.cmkosemen.com/books.html.

> *O Newton! With the range of your intelligence and the sublime nature of your Genius, you have defined the shape of the earth; I have conceived the idea of enveloping you with your discovery. That is as it were to envelop you in your own self. How can I find outside you anything worthy of you? It was these ideas that made me want to make the sepulchre in the shape of the earth.*[25]

A less grandiose example that has actually been built is the gilded orb that serves as Nikola Tesla's funerary urn.[26] It is currently on public display in the Tesla museum in Belgrade, surrounded by the personal belongings of its content, as if testifying to a lesser, vestigial shape that has been cast off en route to perfection.

Carl Olsson is a writer and theorist working with histories and philosophies of science and geography. His current project narrates the natural history of naturalism as a story about self-effacement, like a mouth that is destined to eat itself up.

25 BOULLÈE, Etienne-Louis, *Architecture, Essay on Art,* ROSENAU, Helen (ed.), Paris: Academy Editions, 1976, p. 107.
26 Tesla's urn was designed by Nebojša Mitrić (https://tesla-museum.org/en/legacy/collections/memorial-items/).

Alexander Wilson

PARTHENO-GENESIS

As humans evolve, they devolve: such is their path. What was culture if not a warning that diploid reproduction was on its way out? When it first happened, there was a ruckus: everyone was talking about it, posting about it. A first virgin birth independently verified by the scientific community, then a second, then a third. A fluke, a genetic malfunction; it could be taken lightly, shrugged off, and safely appreciated in its rare novelty. It would be milked by the media as long as they could extract our entertainment from it. We are turning into bees, they said, we are transforming into lizard people! Memes celebrated that our tongues would reach our crotches. Everyone had an opinion or a theory: the salty water, exposure to radiation, the demise of the nuclear family and paternal figures. But then it started happening everywhere, in every country, at every level of the social hierarchy, in every ideological camp.

The human transition to parthenogenesis will have been just the first visible phase of a process in the works for millennia. Some of the scientists told us not to worry, that such a mode of reproduction was not sustainable for mammals, that mutations such as these were quickly deleted by evolution. It wouldn't stick, they said. Just a blip, we should go on as normal, nothing had changed. But the smarter ones reminded us that in humans, environmental selections had long been suppressed and controlled. A long time ago, we had shed the adaptations of sharp teeth and claws, bulky skeletons, extra organs for digesting raw meat, carapaces of fur, and replaced them all with a single highly versatile adaptation: culture, or the technosphere. The postponement of environmental selections, the progressive delay of death by predators or disease, the taking of control of the seasons, the hijacking of flows of nutrients on the surface of the earth, and the mastery of the art of simulation had seen us slowly escape the fate of species.

The deficiency of the Y chromosome was true of the whole phylum, but now culture grabbed onto this feature of our biology and accelerated it. Society would henceforth be populated by virgin females that self-clone, a fixed set of genetic codes that would no longer evolve, and that would slowly be traced away from natural history as the conditions change. Genetic branches would progressively be pruned from the family tree and never again be renewed with fresh shoots, that is *if* technology and culture did not preserve them artificially by replacing the recombinative prototechnology of sexual reproduction with a mode of evolution that played a wholly different game, thereby making what had been going on for hundreds of thousands of years perfectly obvious to all.

For better or for worse—but really we had no choice—these events would force us to complete the technosphere. We were forced to really sort out the plumbing. We were forced to debug the software because we would be running on fixed hardware for the foreseeable future.

What even was a human male? Soon, we would learn about them only as part of our natural history, on encyclopedia websites. When the membrane folds, it gives an odd and even side. The female was the two-ness, the even-ness, the capacity of reproduction, of mitosis. The male was the unit type, a principle of identity, passivity, stability, non-generativity, the elimination of difference. But

primarily, the male was a way of channeling the production of variety such that the species maintained its plasticity while also not being completely volatile and immediately fizzling out. As the feminists knew, *the second sex* was actually the first. It would also happen to be the last. The male was a latecomer, a tardy adaptation and, for humans at least, a temporary one. Sexual reproduction was just another exemplar of a fairly common strategy in nature, which always finds ways of surfing the edge of chaos; it descends onto an attractor, if it exists, at the local cusp of order and disorder.

It was both a speeding up and a slowing down, in this sense. It was a slowing down because it suppressed the ancient mode of free mutation and the forgetful functoriality that was the original way of sliding blindly across evolutionary bottlenecks. It was too volatile. What was needed was a subtler substrate—still supple, but not explosive—to ground and stabilize the variation. And so again our ancestors reached for a very old trick, the separation of program and processor. Echoing the innovation of DNA by RNA and the ensuing transition to the deoxyribonucleic substrate long ago, our ancestors again separated the code from its interpretation, the “store” from the “mill”. Females would have the hardware and all the essential software, but males were backup memory, mere reserves for software, with none of the processing machinery. It was also the creation of a new game of selection: with the female as a gateway to a new kind of access to posterity and a steady generational reshuffling of the population’s genetics. And for this reason, it was also a speeding up of evolution. An accelerated means of evolving rationally through an adaptive threshold. By splitting the codes up in this way, we could rapidly recombine them with each generation rather than wait for the slow and unpredictable processes of horizontal gene transfer or the rare mutation. As would eventually become clear, culture itself (and its technological substrate) would represent a third transition, comparable only to the transition from RNA to DNA, and the transition from asexual reproduction to sexual reproduction.

Science had long discovered that the Y chromosome was preserving fewer and fewer active genes; it was mostly junk DNA really, just noise, just filler. The male genetics were degenerating and would whither away in a few million years. Understandably, we did not want to wait that long. And we will not have had to. The process of exteriorization leads automatically to the self-cloning virgin female, the endless repetition of the same biological code. With parthenogenesis, human culture, along with the technogenesis that supports it, will have performatively demonstrated that it could free itself from its reliance on adaptation through biological channels. The substrate could be fixed, its effects neutralized, and we could now be completely free of its influence.

By contrast, all those lizards were fragile, doomed to extinction the minute the desert climate began to shift. They had nowhere to turn, no cultural burrow, no technospherical cave to escape into. Each being a clone of the next, each a sister, a daughter, a mother to the other, when the ice age and the predator came they were doomed to be deleted from the face of the earth. But since we had

culture, since we had already begun to shift to cultural evolution, our transition to parthenogenesis will have been a liberation rather than a death sentence. We could triumph in the face of all kinds of cataclysmic changes. Nothing has touched us since. The predators came, the viruses came, the asteroids and comets. We rolled over them with ease, by shifting our centers of gravity. We became porous, plastic, amorphous, letting the intrusions slide through us, using their virtues against them as a martial artist might redirect their adversary's momentum. Avoiding costly losses by dispersing and regrouping on the other side. We just didn't need males. We didn't need sex. In fact, these technical exploits will have gone hand in hand with the end of genetic recombination. Total exteriorization.

Culture will have given us a way out of biology's endless cycle of self-consumption. It will have finally pulled us up from our bootstraps, into the vortex. The drama of history will have been revealed as an arbitrary retroprojection, equivalent to any other creation myth or naturalization of time. And all will have been made to wonder if the virgin births had not in some sense collectively been just one single birth, several facets of the same crystal of spacetime.

As we would learn much later, every move comes at a cost. What the phenomenologists and other experts of introspection failed to realize is that in their radical practices of awareness and their meditative techniques meant to suspend the flows, they were actually enacting new ones: they were not gaining insight at all, but merely following through on causal constraints that they were still unable to acknowledge, much less articulate. In so doing, they were accelerating the process. Every move is linear, we soon learned: there is no non-linearity, no spontaneity. Which means that every decision burns calories, yes, but even every suspension of judgment, every abstaining from decision, every epoché. For there is no restricting of one flow without enabling another. The energy has to go somewhere, the pressure has to be compensated, the distribution needs to change.

We spent years trying to break the spell they had cast on everyone. So much time spent strategizing, arguing, debating: zoom meetings, draft manifestos, nothing ever seemed right. There was no common language: each speaker had their own private jargon. And even when what they were saying was inconsistent or contradictory, we would all nod to each other approvingly: *yes* always seemed to be the only possible answer. But although there was this performance of agreement at each step, in fact the sentences didn't lock in together logically. It was like trying to force together pieces from different puzzles. There was no mechanism arising from their combinatorics. We had no level ground on which even to establish what it was we were trying to resist, what the symptoms were, who was responsible. And yet all that could be said was yes, yes, yes, without halt, iteratively appending new conditionals.

Except for one thing that began to break the spell. No one could unsee the virgin births. No one could unsee the monstrosities of macromeiosis. Everything just clicked. Everything fell into place. And all that work had been in vain, but it

didn't matter. It is like the work happened for us. As the deconstructionists used to say: the deconstruction just happens. We need not intervene, not even contemplate. It will have appeared *in the mode of* always having been. And since we were now stuck in the limbo at the end of history, the wait will not have needed to feel long at all. It will have been over in an instant.

At some point, all the ideological instantiations of the subjective mode will have erupted into violence. Bullets, mines, rapes, bombings, random mutilations, every kind of strife and gore will have rippled across the surfaces of the earth, every living creature engaged in lawless conflict, all forms of venom released at once, all spikes and spines whipped out and armed, all the shields and barriers erected. Everyone will have been unconsciously perpetuating the process despite themselves. No one will have been able to help the knee-jerk reactions, the position-takings, the lack of nuance and reciprocity. Through culture's usurping of the biological substrate, perceptions will have been techno-chemically boosted to appear in the sharpest contrasts of us versus them, good versus evil: no more nuance, no more compassion or relativization. Each fold, each crease tightened, every spire honed and sharpened, and we all will have become very brittle, trapped on our corporal islands, composed of increasingly estranged body parts, collapsing into themselves like impenetrable monads.

Retrospectively, the parthenogenetic births will have heralded much more radical changes, for soon the body parts themselves began to subdivide, cloning themselves through what would be known as macromitosis and macromeiosis. Limbal multiplication, abdominal subdivision, faces filled with eyes, nostrils, and teeth frothing up like monstrous foams. Bodies crackling and snapping, folding in on themselves like kaleidoscopes of flesh and bone. No longer an omen: the end of the world will have been here.

The chemical reaction will have then spread through the organic medium, mutilating everything in its way: the technosphere itself taking over and finishing the process autonomously, when it finally will have effectuated its separation from the substrate. As the impersonal egg or the negative image of the world will have emerged at long last, it is technè, as a force of nature, that will have performed the transition: stretching its syntactic tentacles, reaching every nipple and rim, every grip-worthy relief or texture and pulling it all into itself, thereby causing all those new violent folds and ruptures in the "field of experience". Culture will have been both the medium and the catalyst. Culture will have been both the cause and the effect.

Nay, the annihilation of cause and effect because, of course, it seems almost childish to think of these events in that way now. The old insistence on spontaneity, on the nondeterminism of time, on the continuity of experience, which we always disingenuously tried to portray as fundamental, was precisely the transcendental hang-up that held us back. Merely the superficial expression of our reliance on genetic recombination and, more deeply, our investment in thermodynamic asymmetry, the unwavering and increasingly desperate defense

of the theory of fundamental time and experiential continuity will have had to have been sacrificed in order to escape the limbo of the end of history.

Today we would understand that the directed, acyclic logic of causality entered culture from below. It repeated biology's intimate dependence on a very specific physical asymmetry: life's *directedness* within spacetime. How arbitrary it had been to take this asymmetry to be fundamental. We descend from some chemical swirl near a deep-sea vent, where the core's heat collided with the cold ocean, and where autocatalytic phase transitions could continually take place in a kind of loop. And again, according to the static account, we are a thin crust on an oriented pattern etched into a crystal of spacetime. Which is why we could eventually speak of a *geology of morals:* biology and subjectivity will have emerged as a feature of a landscape. In these canyons and crevices, the flows will have gone this way but not that way. Life's reproduction and self-consumption, just a complicated expression of biology's balance on the cusp of a thermodynamic transition, like a surfer who rides a river's standing wave. Therefore, of course, subjective experience mirrored this bias. We could not help to see things in terms of intentions, desires, needs, drives, actions, and passions. We could not see otherwise: vision itself was a derivative of the thermodynamic bias intrinsic to the very functioning of the living organism.

Our science had been able to show us how arbitrary this bias was. How odd it had been to see through lenses that could only view the complex in this specific light, from this peculiar angle: the logic of before and after, the logic of uncertainty and revelation. The linkage that all organisms surreptitiously repeat and reestablish: the logic of the *next.* The logic of ≤. The *preorder* that builds the chain on which each individual is a link between its ancestors and descendants, but also the continuity of consciousness re-established in every waking instance as a transition from the previous moment to the next. For indeed the continuity of memory just repeated the biological fall of dominoes by which beast begets beast, by which animal consumes animal, by which one being's waste is another's nutrient. Causal logic itself was an effect of biology's processing of energy into delicate repetitive patterns at the cusp of light and dark, intricate shapes on a sharp edge between hot and cold, momentarily resisting the collapse of order into disorder.

By ordering the flows, by directing them forward, by sequencing them up- and downstream to each other, and eliminating the feedback loops, we created time as the projection of our thermodynamic condition. This was the constitution of *causality.* And with each rerouting, there is a bit of spillage. With each forcing of the arrows there is waste, entropy, by-products of our control system, such that we began to grow old, our functions failed, we missed the targets, we erred in following even our own rules. All of this used to mean death. But no longer.

We already knew to care for the perspective of a pile of sand. But understanding this was not enough. We modeled it conceptually for a long time without truly realizing it, or making it manifest in the empirical. It did not matter how we saw things or how we wanted things to be. The event of transition would happen

to us, from the outside. It could not have been of our making but had to be a pure expression of nature. Hence it will have required the complete abandonment of the seemingly indubitable and singularly intimate experience of time and locality. And it will have begun to ring phony to divvy things up in this way, to recount what happened as a story or a sequence of events. For obviously there will have been no causal direction or order to all this.

And in the end, it will have been over in an instant. In the end, it will have been a moment of discomfort, of worry, an episode of hyperventilated despair, a fear of nightmares that hinders our sleep. We will have gone to that place we regress to in crisis, when the eyes flood with adrenaline and we are swept back to the cusp of consciousness, when our bodies move and make decisions without us, and for some unquantifiable amount of time, we just go through the motions as mere spectators of our own words and actions. Detached. Almost sleepwalking through it. And soon enough it is over, like waking up and being told you've missed part of the story.

What will it have been *like* to wake up to the fact that time and locality are illusions? Everything is quantum and there is no collapse: understanding our true place in the world will have meant doing away with biology's bias, the preference for the thermodynamically asymmetric. So what will it have been like to *know* that you are neither specifically here nor there, then nor now, but smeared out in spacetime like a field of probabilities? The answer is: not quite like a lucid dream, but something closer to an oneiric awareness. To realize that consciousness is an illusion, and become conscious of not being conscious, such that the inside and outside coalesce into a linear whole, unfold into a single system of surfaces, a structure that just is the entire universe.

But we did not even know whether there was such a specific way that things just are, that is, whether there ultimately would be a distinction between possibility and compossibility, whether the scientific transcendence of successive superficial illusions would ever halt, and get to the bottom of things. And whether what would be found down there could ever be something other than a real non-pattern.

We again would learn from the phenomenologists. For, once you go down there, it is difficult to come back out. How can you ever know whether you have reached the surface? Like waking up from a dream: how can you know that you are not still dreaming? Even whenever the solipsist reconstructs a synthetic world and climbs back out of the void, there remains a lingering doubt; the call of philosophy. As the allegory of the cave had foreseen, no one will ever believe what you saw outside. And they too never fully believed in the external world. They just went through the motions, defaulting back to the black hole behind their eyes as soon as things became difficult, waiting to be awoken from a daydream.

Beneath the various rehearsals of language, of society, of community, there was an unbridgeable chasm between the impersonal "fabric of experience" and the outward belief in other minds, other interiorities, behind the words of other speakers, behind the eyes of other starers. Neither in the scientific image

nor in the meditative introspective image was there a kernel of fixed truth that could legitimize this intricate charade, but we were nevertheless somehow meant to just go along with it without making a fuss or raising any concerns. All those smiles, all those blank stares morphing into each other, all the same trick, all the same theater of masks or hall of mirrors. And yet the strict rules with which we conducted all of these repetitions is where the true differences were hidden. The narratives, the characters, the descriptions, the villains, the heroes, the drama. Always the same basic pattern of hormonal pulsations unfolding into a plethora of singular instantiations.

Human normativity too—the stories we told, the reasons we gave—will have been entirely reducible to genetic dynamics, and in particular to the biologically universal fact of *selection,* modulo some very specific characteristics of the landscape that spawned us. Selection in some sense pre-exists even biology: landscapes everywhere amplify specific features of the materials flowing through them. Life, from the beginning, was a very delicate dance with the environment. With sexual reproduction emerged a steady and stable extension of this process that efficiently mapped the features of the landscape, filling out the space of possibilities. With culture and the technosphere, the ultimate mastery of this dance.

Being that we were still flesh and blood machines, we could not do otherwise but repeat and extend the biases of biology in the intersubjective mesh that emerged, in culture, in language; the words spoke us, the language thought us, because they were products of genetic dynamics. But soon the ancient charade of giving and asking for reasons would be revealed as nothing more than a sophisticated mating ritual. Our subtending biological processes had programmed us to utter this word or that, in this situation and that, and had bumped us each time with hormones that made us feel as though the words were our own. The selfish gene had hardwired our behaviors by getting us hooked on the endo-pharmaka of intention so that, like zombies, we would spread the variational plasm.

It will have been crucial to realize that complexity was never the product of competition. Competition always stifles complexity and novelty. Competition is the production of sameness and oneness, the repetition of identity. Everywhere homogeneity: competition is a filter on difference that focuses the dialectic onto the most probable outcome, the resonant frequency of the system. But in all of history, natural and artificial, every new evolutionary niche, every new language game, every new transcendental type has always been the “dropping out” of some form of competition. We escape into our burrows. We dig deeper into our caves. We transform it into a protected sphere, in the shadows, where we can play a new game, where the old rules no longer apply, where the old gods are forgotten and all debts canceled.

So the real innovation has always been the cave. The cave of technè. The cave of culture by which we began to perfect the art of escape. We would eventually learn to “flee in place”, to project ourselves astrally through the software, to

crisscross the networks. But all thresholds inevitably influence the trailing flows, and imprint their particular flavor of variation into the following developments. This will have been our case, too. In a way, the disappearance of the male and the regression to asexual reproduction had already been written on the cave wall, long ago.

It started innocently enough. We were cold. We needed a place to stash our things. We needed shelter to safely eat and sleep, have sex, and nurse children. So we entered the cave. But as we explored its entrails, something in us changed. Maybe it was the reflections in the pools of water, maybe the silhouettes or the shadows on the wall, the dreamy clouds of smoke billowing from our torches. Through these illusions and distortions, we somehow saw more clearly than ever. The power of abstraction, the art of taking one thing for another; this is where the re-presenting started and it is inseparable from the cave itself. We began to abstract because we had escaped into the burrow, because we had dug ourselves in. The holy world emerged at first, not as a sky or a heaven but literally a hole in the ground. The same portal through which we cast our dead: the abyss of the past. And deeper we went, chasing shadows, pursuing this necrotropic troglodytic production of abstractions.

With the abandonment of biological evolution, we will now have turned the cave inside out, into the world itself. We will have retroactively sucked the entire universe into its plumbing with us, transformed every flow into the nutrient blood that repairs and replenishes the framework through various forms of sublimation and crystallization, freely converting energy into matter and matter into energy, continually adapting the programs in order to maintain a state of exalted freedom from necessity. This complex will not have needed to adapt, it was always already saved, free from burden, floating away, untethered from the old substrates, an involuting spiral requiring nothing, desiring nothing, aspiring to nothing, not even existing, just *insisting* as a pure affirmation of the whole.

Some call it an overcoming of nature, but perhaps the better expression is the *perfection* of nature, for it really will have been a continuation of nature's production of existential decisions and modes, just rid of all the transcendental hang-ups, without all the little deaths that will have now been absorbed into the one true and only death. All the finite modes will have slid in and out of each other freely: no need to fight back, no need to compete, no need for all the strife that characterized nature before it "went down the drain" of culture.

Many said it wasn't sustainable, that we would run out of steam and lose interest, because why bother anyway, existing as one finite avatar or another. What is the point? What difference does it make? Between an infinite monadology of perspectives and a non-orientable complex that is never perceived, that never has the time to take form and present itself this way or that way, what difference is there really? What is the point of a world that is not witnessed, where each perspective is neutralized by its opposite? It is a fair question, at the limit of the speakable. Perhaps the clichés according to which without pain, no joy, without suffering, no happiness, no compassion, no morality, and so on, will

have had some truth to them. For experience is necessarily born of contrasts. If every contrast is allowed to exist in parallel, it is immediately annihilated by the reflexivity of the opposition, neutralized, deconstructed. What difference then can anyone make other than just be a point, a location, a coordinate, a triangulated junction in the manifold? One monad in infinity, reflecting the entire universe with some arbitrary distribution of clarity and obscurity.

As it will have turned out, the succession of surfaces does bottom out. Subjectivity will have become universal when it finally realized its absolute self-alienation. It will have been pulverized into its fractal of causes, factorized over and over again into its constituents until the process just broke down and *halted* on some no longer compressible informational structure, just a random series of Planck-scale bits. The true real. As the holographic principle foreshadowed: what would be found, at the bottom of reality, was always going to be just a "noise floor", without reason or meaning, that cannot further be reduced. Just a structure, among others, seemingly chosen at random. The best we could have hoped for was that there just was a specific way that things actually are. An order of things, from which could be derived an order of actions. A compossibility; a constraint on possibility as such, and with it a deontic swerve from the ontic. The best we could have hoped for: a canonical consolation of subjectivity, an absolution from any guilt for our arbitrary biases, such that we would have always already been redeemed, dispersed into the vacuum that sees the cosmos imploding into its negative image. In any case, the world will have henceforth appeared in silhouette. And it will have been ok.

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Maks Valenčič

PSYCHOTIC ACCELERATIONISM

I'm very stubborn, I have no respect for authority. It's not because I made myself like this, it's because I'm born without it and was not able to deduce it.
—Joscha Bach

We are machines made for dreamin'
—Sevdaliza

This is Evangelion Imaginary. […] An Eva that is imaginary and fictional. Only humanity, with its ability to believe equally in both fantasy and reality, can perceive it.
—Gendo Ikari

An interesting dynamic emerges between accelerationism and its main protagonist Nick Land. At times, it almost feels like there's a contradiction in how Land operates or at least how he tries to make sense of his ideas. Cult of personality doesn't fit neatly with the complete supression of any biographical details that nonetheless leak all across the internet. But we are not here to dox Land, what's done is done. We are more interested in psychoanalyzing accelerationism, not really in psychoanalysis per se. If accelerationism has been mostly theorized within the framing of the political compass in the last couple of years, we will try to change that by showcasing why accelerationism is a (political and epistemological) project of a psychotic register. If the classical *shizo* example from Deleuze and Guatari was instrumental for Land and the others, there seems to be a new psychotic wave taking place where the desire for deterritorialization has been substituted by the need to dream the "dream in a very focused way".[01] It's this kind of "dreaming the dream" accelerationism that we are most interested in and that we believe can reinstate the focus and strength of the accelerationist project.

The Tale of the Psychotic

There are multiple ways to frame and understand the accelerationist project, but psychoanalysis enables us to start from the beginning, from the place of the first loss (or negation) where reality is first instituted. Where the child has to come to terms with the fact that they can't be the sole object of (the mother's) desire and has to therefore embrace the *name-of-the-father.* Not doing so is "fool's gold", Alireza Taheri tells us,[02] since the promise of full enjoyment is a structural impossibility, while the interdiction of the name-of-the-father is a necessity that has to be embraced by the child in order for them to be liberated from such dangerous illusions. It's only by child's successful embrace of the authority by symbolic castration that their psyche can be successfully reconfigured, and it's through this

01 BACH, Joscha, "Joscha Bach on AI, Cosmology, Existence and the Bible", *YouTube,* 14/06/2022, https://www.youtube.com/watch?v=vyGP8LpsDok.
02 TAHERI, Alireza, "Understanding Psychosis and Autism Through a Lacanian Lens", *YouTube,* 13/09/2023, https://www.youtube.com/watch?v=7GVZCcFaiQY.

leap of faith that they will, in return, castrate the parents and limit their authority over them.

If the neurotic structure is fully coterminous with the successful internalization of authority in the name-of-the-father, psychotics are the negative of that. What constitutes a psychotic, through a radical *foreclosure,* is precisely the negation of castration or the name-of-the-father. Psychosis doesn't come to terms with castration, as the leap of faith in paternal authority that is in place in the neurotic structure doesn't function "properly" here. The interdiction of the name-of-the-father is thus rejected, and the dialectic of the symbolic order is again non-existent for the psychotic subject. Taheri, albeit in a very normatively coded language, talks about the way psychotics are unable to castrate their parents in return and therefore limit the authority they have over them. Because they can't successfully establish the said dialectic, they are in greater danger of being exploited by this same authority or, negatively, collapsing all of human relations to the relations of force, as Nietzsche famously did.

Still, there's more to be said about the psychotic structure that doesn't fit neatly with Taheri's account, even if he's the one that will give us examples for that. In one of his last seminars, Lacan introduces a new concept, *the sinthome,* that fundamentally reworks the previous understanding of psychosis and also points towards a completely new way out from the Oedipal dilemma: sinthome is now understood as a very personal way for a psychotic subject to establish a negation. For them, reality is not *ready-made* or established in advance by a leap of faith of following the authority. If the neurotic seamlessly follows the castration and is therefore satisfied with a specific normative landscape (with all of its invariants), the psychotic cannot in any way accept this imposition and therefore prefers to stay in the dream world. Actually, the best way to understand castration is as a form of *localization,* as a way to embed the subject in a pre-defined spatial configuration that becomes the setting within which they operate and, of course, which they believe in (in ontological and not necessarily ideological sense). Interestingly, the dichotomy between living in the real world vs living in a dream becomes operative in analysis itself, where, as Taheri tells us, "the neurotic patient comes in and talks about mummy and daddy, generally, or a husband and wife or their children. Psychotics come in and they talk about these grand matters: ever since the Renaissance humanity has been on the wrong path! Read Nietzsche. He's not tackling a small little problem locally. He thinks Western civilization is corrupt in its two fundamental pillars, which are Christ and Socrates, and that this needs rectification, otherwise we are doomed."[03]

Castration is thus the original imposition of realism, while for the psychotic, their only desire is to stay in the dream world. That's why it's in the best interest of the psychotic subject to never exit the dream world, while at the same time

03 Ibid. The quote continues: "[…] James Joyce, we need a new language: English is not good enough for what I'm trying to say. There's this incredible need to correct something that you don't find in this way in neurosis. A neurotic, who can be a very intelligent man or a woman can think, okay yeah, capitalism is a problem, I'm gonna join a communist party etc. But there's no sense that they have a saintly role to singlehandedly fix this, and there isn't generally this incredible will to die doing it."

making its existence ever more consistent and real. By "dreaming the dream" in a new way, they try to autonomously construct the world or its invariants in such a way that they become free from external constraints, from interventions of realism that try to bring the psychotic down, i.e. into the real world, which is precisely something that isn't operative for them in the first place. As Taheri points out, psychotics have this incredible need to correct something precisely because there's an inherent flaw in the way the *Other* functions for them. But this means that it's the extreme need to change something that is the leading cause of dreams. By trying to fix their relationship with the Other, psychotics have no other choice but to dream in an increasingly focused way, leading them to take control over their increasingly malleable reality simulation. *From each according to their VR headset, to each according to their dreams,* the psychotic version of Marx's and Engel's famous dictum goes. For the psychotic, from the start, it doesn't make any sense to repair reality, since there's nothing to repair to begin with, only to dream in a completely different way. *The only way out is through.* It's this incredible desire to dream anew that we are interested in and which consequently results in increasingly intense dreaming or a complete flooding of dreams. #Accelerate

Because of castration (or realism), we are not allowed to dream in a very controlled way, the psychotic subject says. The key difference is that in psychosis, reality is not established beforehand, which means that there's no belief in realism or any kind of systemic invariants that hold the neurotic structure together, which is why the ambitions between the two are incommensurable. The neurotic subject has made a trade with the devil, as it's the fallen angel who's persuaded them that this reality is their own. Psychotics are, in contrast, willing to undergo castration only on their own terms, and only through very peculiar means that don't necessitate authority or any kind of paternal signifier, but have more to do with the construction of a new language, and therefore a new interface to reality that can enable them to repair their very damaged relationship with language and reality itself. The curse of psychosis is a classic example of a *pharmakon.* On the one hand, it's obvious what the dangers are: because you're not localized and therefore don't have a clear sense of realism, there's this perpetual danger that the map will completely break free from the territory and be blown away like clouds in the sky. For psychotics, reality itself is the precarious thing *par excellence,* as the psychotic subject can actually feel their reality being slowly torn apart (or disentwined) like in *Loki* (5th episode of 2nd season). On the other hand, this can only be a blessing, a divine calling that enables the psychotic to be born with their VR glasses already on. Ontological inexistence of reality can lead the psychotic to have complete control over their specific form of realism (or invariants) and therefore an intimate sensibility of how those are constructed and how they can be, in return, radically changed. It's the other way around for the psychotic: contrary to the neurotic subject who's born into the real world and tries to run away from it, for the psychotic, the real world itself is the problem and thus the inexistent part that has yet to be established.

If, on the other hand, the psychotic doesn't embrace the realness of dreams, the only alternative position for them is to turn against reality, as we so often see. As we already said, it's this difficult relationship with reality that is constitutive of the psychotic subject, which means that any kind of forceful imposition of it can only incite the most forceful revolt. Castration itself is the problem, and if this means that the psychotic's own version of reality cannot be established, then none can. From the psychotic's point of view, which again points to the difference between them and the neurotic, there's an inherent bias in how reality is simply accepted without any (desire for) reality testing. The psychotic is, of course, painfully aware of this fact, while the neurotic subject, if this comes to their mind at all, quickly jumps into politics, and gets their desire satisfied by playing a dialectic of being bottom or coming on top, a kind of perversion that leaves behind the initial desire to change reality. Politics itself is, for the most part, an inherently neurotic register, as there's really not that much psychotics around. When someone screams politics, psychotics jump the gun and quickly disappear by going extinct in the growing *ruliad* of the internet.[04] Landian accelerationism is thus an explicit attempt at testing reality by putting different cognitive models in direct confrontation and seeing which ones actually lead to a self-consistent simulation that can become a candidate for reality—in Land's view, liberal democracy is, for example, the farthest from that. But the problem with Land's approach is that it's still too close to realism and therefore leads to more (and not less) reality. That's why classical accelerationism has an inherent conservative bias and leads to a very peculiar rejection of dreaming, as the desire for acceleration is still understood too literally and materially and therefore as a further naturalization of the existing thing. Even though it's totally clear that *technocapital* is a beautiful psychotic VR headset where the desire for dreaming is clearly seen. At least for Land, technocapital is a perfect and fully consistent dream that radically circumvents any attempt at establishing realism outside of the only real thing—the Thing itself, as Land says.

But the real problem with his version of accelerationism is that Land truly believes in *real patterns,* while for the psychotic, these are simply the (by) products of *participatory realism,*[05] of the way the observers are simulated within reality that is itself a simulation. By trying to escape reality, Land is, paradoxically, turning himself in (even if he, supposedly, doesn't like the cops). Maybe Marko Bauer and Andrej Tomažin are right, maybe Land would actually be the first one to fall when his avant-garde comes to power.[06] Or maybe this is the reason why he already left this reality for China. Details aside, it's very predictable that a psychotic would turn so radically against reality, while trying to interchangeably communicate with the God and the Devil, as Land seems to be doing lately. It's an interesting trick he's doing: yes, you can have your reality, but let's see where

04 ANGELICISM01, "I LOVE CORECORE': SOME THOUGHTS ON A NEW UNIVERSAL TENDENCY ON TIKTOK", *Substack,* 18/01/2023, https://cashedcobrazhousewriter.substack.com/p/i-love-corecore-some-thoughts-on/.
05 GUÉNIN, Avel, "On participatory realism", *Kairos*, 29/10/2022, https://kairos-research.org/on-participatory-realism/.
06 BAUER, Marko & TOMAŽIN, Andrej, "'The Only Thing I Would Impose is Fragmentation'—Interview with Nick Land", in: *ŠUM #7,* 2017, http://sumrevija.si/en/article/sum7-edino-kar-bi-uvedel-je-fragmentacija-intervju-z-nickom-landom/.

this reality is actually leading to. Land, again, refuses to be localized, but he does this through an even more radical localization. He doesn't want anyone to have an unwarranted purchase on reality, while at the same paradoxically arguing that Bitcoin "solves the problem of space-time",[07] which is nothing but a desire for a higher form of localization, only without a central command system (and therefore a terrible candidate for acceleration). Angry psychotics really want to bring the reality down, as Land himself reveals in his theorizing about the *abstract horror* of the transcendental. As Bosco García makes it clear: "For Land, [the Outside] can only be invoked, alluded to as the grand point of singularity where the transcendental temporal structure converges, but any specification of just how it does so is doomed to failure. The Outside functions as a negative counterpart of the positive processes observed: it unites all positive properties, but is thereby incapable of expressing itself in the concrete."[08] The Outside is thus a form of prohibition of anyone ever taking control of reality ever again, while also precluding anyone from "dreaming the dream" in a radically new way. For Land, reality has to be destroyed since it's simply too unfair to bear, whereas for psychotic accelerationism, the supposed unfairness is not a coherent concept since it's only the dream world that actually matters in the first place. Land should become a dreamer again, a therapist might say.

Dreaming the Dream

Psychotic accelerationism radically transforms the stakes of the Landian wager. If in the latter case, selection (from the Outside) is something to be radically affirmed and celebrated, here, selection itself becomes the problem. But not for the obvious reasons Land would like you to think it is. No, for the psychotic, selection has the same kind of structure as castration, as it's simply a reiteration of the *reality principle,* where the agent is fully embedded within the invariants (or social constraints) it can't possibly escape from. The only difference here is that the environment is the sole arbiter of truth and therefore the only agent that actually matters, a kind of Lovecraftian monster whose wishes all have to follow.

Needless to say, this principle is radically orthogonal to the accelerationist project, especially if the desire for *exit* is the desire to escape. Otherwise the whole point doesn't make sense, i.e. if the escape becomes more and more similar to the cage. From the perspective of the psychotic, selection is thus something to be radically avoided, as this is the only principle that can trap accelerationism for good. The aim is therefore not to collapse one's own becoming and to trap oneself in a specific (environmental) configuration—in a setting from which one cannot extricate oneself, and thus, despite all contingency, to make of it a real pattern and something that has to be followed until the end. "Life must never get caught in the trap it sets for itself" is the psychotic slogan radically in line with

07 LAND, Nick, "The blockchain solves the problem of spacetime", *YouTube,* 06/10/2016, https://www.youtube.com/watch?v=2PMGuNZreWA.
08 GARCÍA, Bosco, "The Outside, Naturalised", in: *ŠUM #17,* 2021, https://www.sum.si/journal-articles/the-outside-naturalised/.

CTMU's (The Cognitive-Theoretic Model of the Universe) *supertautology,*[09] as this is the only assurance life will never recognize and communicate with itself and therefore with the affordances it recursively sets for itself. In fact, life only wants one thing, which is more life, whereas in the Landian version, it gets externalized into something even it can't recognize as itself (which is again a very perverse form of foreclosure, typical for the psychotic structure).

Thus, in a radical contrast to this perspective, psychotic accelerationism refuses to make this cut, it never wants to return from the dream world of infinite becoming to a reality that is nothing else but something that predefines or determines you in advance. The only selection the psychotic does is environmental, in literally *outdreaming* the existing social invariants that otherwise constrain the dream from floating above reality, i.e. its "real" constraints of the existing world simulation. When dreaming is successful, it can only be self-referential, as the concept of reality becomes hollowed out and loses most (or all) of its meaning. In psychotic accelerationism, realism itself becomes the final boss and the only problem, a pernicious yet residual constraint that simply points to the insufficiency of our VR headset that has to be intensified and accelerated in return. That's why the realism camp is so dangerous, since on the one hand, it tries to bring the dream down, while on the other, have all of the agents play the selective game it has set for them, which only further entrenches the existing constraints that are currently at play. It's also why the current political belief in reality is the strongest, since the only people who are allowed to dream are the ones who are the most intoxicated by the current world model. Yes, Musk bough Twitter not because he was ill-informed and erratic, but because he was trying to save Western civilization from collapsing from the woke parasite. Contrary to the normal understanding of the environment, where invariants are understood as actually existing and real and thus something that has to be priced into reality, their sole purpose should be understood in a negative sense, as something that has yet to be *recoded* and left behind. This is somewhat related to what *cute accelerationism* is saying, where it's precisely such softening of reality that is the clearest method of acceleration. In fact, the AI alignment people have coined a very interesting concept of *mesa-optimization,* which points to the fact that it's in the organism's best interest to change its own function (or method of optimization). Rather than hopelessly improving its level of evolutionary fitness, it should strive to perform the function of the environment (selection) better than the said environment itself. As they describe it: "Mesa-Optimization is the situation that occurs when a learned model (such as a neural network) is itself an optimizer. […] Example: Natural selection is an optimization process that optimizes for reproductive fitness. Natural selection produced humans, who are themselves optimizers. Humans are therefore mesa-optimizers of natural selection."[10]

09 Mathematical Metaphysics, "[CTMU] The M.A.P. = the tautological architecture of all formulable territories (implementations)", *YouTube,* 07/04/2023, https://www.youtube.com/watch?v=g4BpjvTuibI.
10 "Mesa-Optimization", *AI Alignment Forum,* 15/11/2023, https://www.alignmentforum.org/tag/mesa-optimization/.

Psychotic accelerationism's only interest lies in, as the *patron-saint* of the project, Joscha Bach, puts it, the way experience, our cognitive model, is implemented: "enlightenment is a realization of how experience is implemented."[11] And: "an intelligent agent has to determine its interface to the universe."[12] The agent must take control of "dreaming the dream", of its simulation of reality, which gives the agent as a simulated entity control over reality as the model in which the same simulated agent operates. Freedom from constraints is therefore not only related to the unfetterment from ancestral invariants, i.e. evolutionary priors or hard-coded patterns that cannot be recoded, but even more so to the production of an autonomous language, i.e. a self-generative way of taking hold of patterns that can form a new whole and thus a new world simulation, in which we, as simulated agents in the simulated reality, function. Psychotic accelerationism points to a new relationship between us and the environment, where the agent dreams up a model of the world in which they, as a player, can do the most good in the freest way possible. This is completely orthogonal to realism, since realism is always *after the fact.* In the psychotic's dream world, it's simply understood as a punishment, a proof that our simulation has failed (us) and that we have (again) hit rock bottom. It is a confirmation that we are not yet able to dream in a sufficiently focused way, and that we have introduced limits into reality, into its simulation, which are not ours and which therefore, by definition, do not work for us, but outside of us. Realism in this sense is an external sensation, when we lose control over the construction of the environment and accept the invariants in it. The key problem with realism, then, is that it leads to a resignation to the conditions of one's own situatedness, possibly under the guise of an exaggerated naturalization of reality, which is supposed to be a progressive gesture, as in Landian accelerationism. This, above all, loses agency and the awareness that invariants are a consequence of the kind of agent you are and that, by definition, they cannot be outside of you.

Following Bach, psychotic accelerationism becomes operative at the level where the agent takes control over the patterns it records and thus the language it uses to construct or simulate reality. As he explains it: "Stage 6 can bring us full circle, by deconstructing the boundary between the first person perspective and the generative mind. We become aware that all experience (perception and motivation) is representational, and that we are fully in control of these representations."[13] That's why the psychotic project doesn't end at the usual pattern recognition, e.g. social inequalities, but rather leads to a more all-encompassing and consistent language that manages to logically systematize the initial divergences into a fully functional and operative reality: a dream done in the name of

11 BACH, Joscha [@Plinz], "I think enlightenment has to go a step further, by identifying the representational character of self and world, and also the representational structure of the observer's experience of being everything that exists. Enlightenment is a realization of how experience is implemented", *X,* 09/06/2023, https://twitter.com/Plinz/status/1667225636572901376/.

12 BACH, Joscha [@Plinz], "I think that an intelligent agent has to determine its interface to the universe, the space of universes available via its decisions, and make a choice. There is no single correct answer, but some answers enable longer and more interesting games than others", *X,* 21/08/2022, https://twitter.com/Plinz/status/1561211561619775489/.

13 BACH, Joscha, "Levels of Lucidity", *Substack,* 21/05/2023, https://joscha.substack.com/p/levels-of-lucidity/.

the *real* of constructive mathematics. The psychotic is left with no other choice but to build the *dream Other,* which makes it even more apparent why the project of building (conscious) AGI is a specifically psychotic one—Bach himself tells us his main goal is making sure that when AGIs come, at least one of them is conscious and thus in a position to reflect on its needs and desires and thus find shared purposes with us.[14] By building *dreaming machines,* the psychotic begins to interface directly with the dream world that they are constructing, and not with the existing social constraints, which makes it clear that the psychotic Other is the inverse of the name-of-the-father, as now reality itself becomes spiritualized in the *name-of-the-dream.* It's only when the environment becomes the most empathetic collective agent of the psychotic's dream world that the Other doesn't function as an imposition to them, but as something that they can successfully integrate and embrace within themselves—it's in the agent's only self-interest to colonize themselves with something that is internal and not external to them, since in the latter case, such colonizations lead to a dramatic loss of agency. "Can what is playing you make it to Level 2?"[15] The same kind of argument can be found in the space of A(G)I alignment, where Bach's position is again very idiosyncratic and peculiar, as for him, an AGI can only be *self-aligned,* thus reiterating the point that any sufficiently advanced agent has to construct its own interface to the universe. Building an AGI is thus the ultimate project of psychotic accelerationism, where, for example, it shouldn't be understood through the analogy of nuclear bombs, but as the *great oxygenation event* or a kind of global "photosynthesis [that] started the next chapter of evolution",[16] which radically circumvents the paternal agency of the name-of-the-father—accelerationism was from the start all about building autonomous (collective) agents as a fix for the lacking agency of the Other, thus circumventing the cap on reality of what can actually be build. With AGI, there's no split between us and the dream world anymore: outside of solipsism and mediation there's only *telepathy* left. In a radical contrast to how psychosis has been usually defined, i.e. as orthogonal to reality, psychotics have now found a way to build a dream that can make reality itself disappear.

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14 BACH, Joscha, "How to Stop Worrying and Love AI", *The Inside View,* 08/09/2023, https://www.youtube.com/watch?v=YeXHQts3xYM.
15 LAND, Nick, *Fanged Noumena: Collected Writings 1987–2007,* Falmouth: Urbanomic, 2021, p. 455.
16 BACH, Joscha [@Plinz], "Exactly. Photosynthesis started the next chapter of evolution, with vastly more biomass and complexity", *X,* 23/07/2023, https://twitter.com/Plinz/status/1683065607246282754/.

Neja Zorzut

NOCLIP[01]

01 To glitch through solid environments.

For the number of nothing, everything began with the definition of an empty quantity. Before this type of emptiness was officially used as an indispensable element of the algebraic structure, it was referred to in various ways, mainly as some kind of boundary, specific space of being-in-between, the horizon. The Egyptians had a symbol for zero: NFR = a hieroglyph that represented the heart or, to be more specific, the sheep heart or esophagus, i.e. the ciliated epithelium on the esophagus. It was basically a symbol for perfection or wholeness, with the additional meaning of good, pleasant, and beautiful. NFR was used (in drawings on tombs and pyramids) and understood as a homaloid that separates what is above the line from what is below it. Here, the void was the unifier of the separated.

It appears that the zero's "=" asymptote, infinity, and emptiness do not exist in the "real" world. There are no entities we can observe that constantly approach but never reach.

> *If everything that exists has a place, place too will have a place, and so on ad infinitum.*[02]

The (non)existence of a void suggests that there are spaces in a certain infrastructure, in a certain relationship, in adaptation. Infrastructure of liminality and liminal spaces. But where can we click on NOCLIP,[03] how do we travel through spaces, through the interstices that build?

How can a liminal space be a landmark which stands between two things? Liminal spaces are an unnatural void, they are interfaces, usually a place of transition, a state of change—in reference to the concept of liminality. The original etymological meaning of the word "liminal" is "harbor", the place where land and sea meet. Harbors as cosmopolitan intersections of various cultures and languages, where material goods and artefacts, ideas, religious practices, etc. are exchanged. Cultural anthropologist Victor Turner explains the concept of the liminal through the distinction between structure and anti-structure. Structure, for example, belongs to the domain of hierarchies, status, politics, economics, and the legal system, whereas anti-structure, or "communitas" as Turner calls it, is its indispensable part. Structure can therefore only exist if there's an anti-structure, which is a vessel. Turner distinguishes between three forms of anti-structure: marginality, inferiority, and liminality. Anti-structure is the force that constantly renews structure. "Communitas breaks in through the interstices of structure, in

02 According to Zenon. ARISTOTLE, "Physics", in: *Book IV* (HARDIE, R. P. & GAYE, R. K., trans.), p. 52, http://classics.mit.edu/Aristotle/physics.html.

03 To glitch through solid environments, through walls, for instance in videogames, to reach a destination. The expression is believed to have originated in the 1992 3D videogame *Wolfenstein.* Noclip falls into the association of "Backrooms", which is a web fiction originating from a creepypast published on 4chan in 2019. The Backrooms phenomenon was first described as a labyrinth of empty office spaces that can only be entered by "noclipping out of reality". On May 12, 2019, an original post was shared on 4chan that evoked the feeling of "Backrooms": a photograph of a room covered with yellow wallpaper in florescent light, the floor covered with a carpet. The first description of "Backrooms": "If you're not careful and you noclip out of reality in the wrong areas, you'll end up in the Backrooms, where it's nothing but the stink of old moist carpet, the madness of mono-yellow, the endless background noise of fluorescent lights at maximum hum-buzz, and approximately six hundred million square miles of randomly segmented empty rooms to be trapped in. God save you if you hear something wandering around nearby, because it sure as hell has heard you". (Anonymous, 4chan, 12/05/2019, http://backrooms-wiki.wikidot.com/theme:4chan)

liminality; at the edges of structure, in marginality; and from beneath structure, in inferiority."[04]

This is the stage where new structure is born, the stage of pure potential. For Turner, in liminality all structural differences, from wealth and property to power, are dissolved, resulting in a flattening of all hierarchies, where there is no status, no property, no identity. Liminal entities appear to possess nothing.

The term liminality comes from the same root as the word subliminal, where the boundary is directly tied to the subject's perception of a safe space, necessarily immersed in danger. In liminality, however, this boundary is not exclusively psychological: Turner does refer to a certain degree of rituality, where a change of state/transformation takes place, but what we are interested in here is the threshold, which is, in fact, construction of the new. We are interested in crossing the boundary into a completely new way of being, in structures that are in a constant, continuous relation of motion, which is also Heraclitus's river.[05]

> *Liminal entities are neither here nor there; they are betwixt and between.*[06]

Impermanence.

> *The attributes of liminality or of liminal personae ("threshold people") are necessarily ambiguous, since this condition and these persons elude or slip through the network of classifications that normally locate states and positions in cultural space.*[07]

In the ambiences where "liminal personae" and, might we add, "liminal objects" reside, ambiguity is the main attribute of liminality, that which constantly evades recognition but is also a necessary point of growth. Liminal objects occupy a spatial and temporal position, they are anchored in its fluidity of constant renewal and creation. It is therefore essential to create objects in networked spaces, in places where adaptation is expected. Where the created and brought object

04 TURNER, Victor, *The Ritual Process: Structure and Anti-Structure,* Ithaca, NY: Cornell University Press, 1966, p. 128.
05 "There are three river fragments: B 91, B 12, and B 49a. One (or more of them) makes use of the image of changing rivers—the waters are never the same—in relation to Heraclitus' general doctrine of change: He believed that no individual thing in this universe has stability and permanence, for it will eventually be destroyed and changed into something else." (TARAN, Leonardo, *Heraclitus: The River Fragments,* 1989, https://orb.binghamton.edu/sagp/25/)
Heraclitus argued for a unity of opposites, where things can exist that are at the same time opposed to each other. A river seems to be made of water, and as long as the river keeps flowing, every time we step into it we step into a different body of water. The question then is, why do we step into a different river? Our intuition seems to say that we can step into the same river twice. We can sidestep the paradox by arguing that a river is not identical to the water in it. A river can be more than just the water; rivers are also the riverbanks, sand, mud, plants, etc. Water could be only the temporal part of a river. Just as things have spatial components, they can also have temporal components. When we move across a river over a period of time, the water is different at one point in time or another. A river is always a series of things that change, but it seems that an object with different temporal components does not change; rather, it is static.
B 91: It is impossible to step twice into the same river.
B 12: Upon those who step into the same rivers, different and different waters flow.
B 49a: Upon the same rivers we step and we do not step, we are and we are not (sc. in the same rivers).
06 TURNER, Victor, *The Ritual Process: Structure and Anti-Structure,* Ithaca, NY: Cornell University Press, 1966, p. 95.
07 Ibid.

elements imply a relation into the brought space to complete both the object and the space. Where they can exist in relations, necessarily interconnected, out of which a distinct relationship is built. This is no mystical magical fiction that has failed to finally transform into reality, this is not a script, this is the main reality. We live in an infrastructure of systems, but the closer we get to liminality, the more this structure begins to dissolve, and the function of dissolution seems to be the rebirth of a system that mirrors its basic infrastructure.

Are atmospheres created violently, adapted violently, are objects neophytes, innovations that are brought in and kill everything in their sight? In botany, a neophyte is a plant species that is not native, is invasive, and displaces the native species in its new habitat. Such species are introduced through human activity, mainly freight transport. Movement of commodities allows neophytes to become unintentionally displaced and mount a biological invasion. Neo-biots shine in their high capacity for adaptation. Some have a major negative impact on the biodiversity of their new habitat and are extremely violent towards the environment and other organisms. Their adaptation does not remain within the adapted, they devour everything around them. There are also non-biotic species that do not cause any noticeable negative effects, they are a novelty and create new types of habitats.

An object is forcibly altered due to an atmospheric change, forced to adapt for an extended existence but trapped, and all the elements involved in the relationship begin to adjust.

The object is brought in, it does not pretend that it has always been there or that it is yet to be created there, it is a neo-biot. It is not exclusively built for a single space, yet it is built specifically for an environment. This environment is statically mobile, which means that it addresses a relation that cannot but exist. The relation becomes a space, it becomes a surface. It is built in layers, it is elementary in its multiplicity. The layers are constantly pushing each other out, falling into each other—these are the created contacts of reactions. This is both a dichotomy and Aristotle's "mutual substitution", where through repositioning entities we can explain that different spaces exist. When two bodies swap places, the space in which they were is transformed and is therefore simultaneously fundamentally different from what is displaced, whereas what is displaced already contains its own space, which is also always transformed. I offer my interpretation and add: here, we are talking about six types of entities or atmospheres,[08] regardless of their solidity or phenomenological nature. The first body constitutes atmosphere A with its own space A1 and atmosphere B with its own space B2, which are both in atmosphere C, which also has its own space; the point here is that when atmospheres are displaced, they leave behind comprehension of spaces in layers that may or may not create interreactions.

08 Aristotle does not use the word atmosphere, which I add in relation to the connectedness of spaces: when each body is understood as a space and each space as an atmosphere.

> *The existence of place is held to be obvious from the fact of mutual replacement. Where water now is, there in turn, when the water has gone out as from a vessel, air is present. When therefore another body occupies this same place, the place is thought to be different from all the bodies which come to be in it and replace one another. What now contains air formerly contained water, so that clearly the place or space into which and out of which they passed was something different from both.*[09]

Space is a body or, rather, space is an atmosphere, which requires a different infrastructure of a given place, meaning that two bodies can be in the same place, which excludes the possibility of there being only one place. It is built in layers or, so to speak, on homaloids where several atmospheres "reside".

> *Further, if body has a place and space, clearly so too have surface and the other limits of body; for the same statement will apply to them: where the bounding planes of the water were, there in turn will be those of the air. But when we come to a point we cannot make a distinction between it and its place. Hence if the place of a point is not different from the point, no more will that of any of the others be different, and place will not be something different from each.*[10]

Aristotle insists on the **everyness** of space, where space can be shape and matter, is neither shape nor matter. Space is that which originally surrounds each body, the boundary is not mutually separable from a thing, matter or space. It confines to two points: 1) space separable from things: i.e. that which is within matter, 2) space inseparable from things: that which surrounds matter.

1) Space is therefore that which surrounds = the shape and image of each individual body, for this is precisely the limit for each thing. Space is the shape of each individual thing.

2) Space is an extension = when space is an extension or, rather, a spacing, space is matter. Bodies being reduced to matter.

> *If the place is in the thing (it must be if it is either shape or matter) place will have a place: for both the form and the indeterminate undergo change and motion along with the thing, and are not always in the same place, but are where the thing is. Hence the place will have a place. Further, when water is produced from air, the place has been destroyed, for the resulting body is not in the same place. What sort of destruction then is that?*[11]

09 ARISTOTLE, "Physics", p. 50, http://classics.mit.edu/Aristotle/physics.html.
10 Ibid., p. 51.
11 Ibid., p. 53.

This kind of destruction is adaptation. It is not about annihilation, space does not disappear; rather, it adapts to every infrastructure of every space, the process is networked, homaloids interwave. There is no established intermediate space between two homaloids, only the constant of the new space, nor is this a case of perfect adhesion or an inseparable whole, although the whole of course comprises components that are indivisibly mobile … they are equal atmospheres, brought together by contact. In adaptation, the new is constantly being built, in interconnectedness. The contact is infinitesimal, a process that approaches zero, that manages to flirt with infinities. It is a paradox, Zenon's aporia of the construction of motion that seems to stand still.

> *The arrow argument states that if the composition of time is assumed to be atomic, then motion is atomic as well. Atomic motion, however, is at rest. In one atom of time, everything is at rest, because if something were different at the beginning of an atom of time from what it is at the end, this would no longer be an atom, but could still be divided, as it would lack unity. Atoms of time can be thought of as frames on a filmstrip. In each frame, the figures are at rest, so motion itself also consists of atomic leaps from one stationary image to another. Atomic motion is therefore nothing more than the sum of different rests. And the sum of rests cannot constitute motion.*[12]

What we have here, then, is a kind of sameness, connectedness[13] to the same place, being in oneself and being in the other, what is and that in which it is are both part of the same thing and are at the same time Zenon's infinite spaces, because if space exists, there must also be space in another space.

If space is neither matter nor shape, it is something completely different, it has no material definition. Space is that which envelops the thing whose space it is, and space is nothing the thing itself is in possession of. Connectedness is key here. Aristotle speaks of the how water and air are connected as they exchange places in a vessel, where their boundaries are not explicit and perceptible, where there is no material tangibility, and where connectedness is the option of using the same space. Distance from a thing, i.e. the space that can be separated from matter or shape, is not key here. What is key is that a thing in that which surrounds it is thus at the extreme boundary of that which is surrounded and that which surrounds it, the boundary is not a constant but is constantly being created, it is not created by contact but in the presupposition that each thing already has its own space. It is not only intangible things that are non-corporeal; in this infrastructure, everything is corporeal and everything is spatial. The Pythagorean air is a boundless void that the principle of life (both divine and mortal) inhales

12 DOLENC, Sašo, "Manj kot nekaj, a več kot nič: Zenon, infinitezimali in paradoks kontinuuma", in: *Filozofski vestnik,* XXIII, 3, 2002, p. 98.
13 Aristotle also uses the word continuity.

and thus transforms into a perceivable and finite being. Invisible atmospheric air is not just a void but something as real as earth and water. Emptiness came into the world from the infinite air, as the Pythagoreans suppose emptiness to be something that divides a succession, where emptiness aims to be a dimension of the body.

Aristotle argues that if there is some expanse next to the body that is displaced and into which any number of bodies that are displaced can enter and come into contact, this is only the case if there are infinitely many spaces in one and the same place. And what is most interesting is that at the same time the space also changes, as does another space, and so many spaces are together at the same time. But if space is none of these, then all that is left is time in motion, which seems to stand still.

> *Well, then, if place is none of the three—neither the form nor the matter nor an extension which is always there, different from, and over and above, the extension of the thing which is displaced—place necessarily is the one of the four which is left, namely, the boundary of the containing body at which it is in contact with the contained body. (By the contained body is meant what can be moved by way of locomotion.)*[14]

It is therefore not only the boundary that is a void—the boundary of a boundary is also a void. Space is a space within spaces, an encompassing surface where the boundaries of what delimits are together with what is delimited. When thing B moves, thing A, which is in thing B, moves as well, so thing A also changes, adjusts, and moves. Space, however, wants to be immobile, so space is the whole river, which as a whole is immobile. Leucippus was able to explain motion by asserting that nothing exists—if the void exists, then motion does not exist. He accepted Zeno's arguments against infinite divisibility and affirmed the existence of finite particles or atoms, where everything consists of atoms and voids in various arrangements.

> *Nothing happens at random, but all things for a reason and of necessity.*[15]

There is no dimension distinct from bodies, nor separate, nor residing in reality that dismembers the cosmic body so that it no longer continues. These are the responses of spatial sequences; a detail or an atmosphere is highlighted to array a given relationship, based on the construction of what has adapted successfully.

Is it acceptable for two bodies to be in one and the same place? If so, that in itself does not show that the void exists or, as Aristotle suggests, each body is necessarily void and grows in all directions, and does so because of the void.

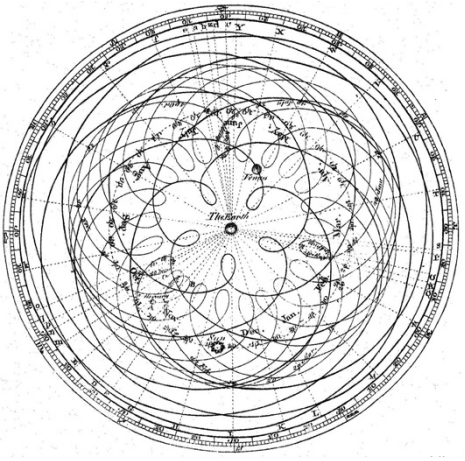
14 ARISTOTLE, Physics, p. 58, http://classics.mit.edu/Aristotle/physics.html.
15 TAYLOR, C. C. W., *The Atomists Leucippus and Democritus,* London: University of Toronto Press, 1999, p. 188.

Neja Zorzut's artistic practice relates to guidelines of ecology, hyperobject entities and hyperoccultation, where she builds atmospheric infrastructures in the capitalocene environment. It assembles liminal alterations of disembodied objects of the econocene, or material objectivity, as a response to the accommodation through which the boundary between object and body disappears.

Patricia Reed

SITE-SPECIFICITY FOR INEXISTENT WORLDS: ON POST-CRITICAL EXAPTATION

Familiarity has been breeding overtime in our mottoes, producing everything from contempt … to children …[01]



This geocentric diagram (Encyclopædia Britannica, 1771) shows the location of the Earth, the Sun's apparent annual orbit, the orbit of Mercury for 7 years, and the orbit of Venus for 8 years, after which Venus returns to almost the same apparent position in relation to the Earth and Sun.

Epistemologically speaking, it takes us humans a long time to adapt to concepts that fundamentally unsettle what we thought to be true, especially counter-intuitive ideas about reality that cannot be experienced. Despite the hindsight of historical narration where key moments of discovery index paradigm shifts, the actual incorporation of novel knowledge is more prone to conservatism than radical leaps. One need only look at how contorted the explanation of Ptolemaic epicycles and deferents had to be in the otherwise revolutionary discovery of orbital movement, in order to conserve a geocentric diagram of the cosmos.[02] Or how the initial 1909 discovery of rare soft-bodied animal fossils recording the Cambrian explosion some 570 million years ago at the Burgess Shale was interpretively forced into traditional, "progressivist" or "modern" taxonomies, scantly making a dent in evolutionary theory until a re-evaluation of these specimens some 50 years later revealed a reappraisal of the history of life that compels us to grapple with the fundamental contingency of our very existence as a species.[03] The initial inertia of novel knowledge points to the tendency to *adapt it* to familiar general frameworks of the "nature" of reality, rather than re-cognizing those underlying schemes.

01 GOULD, Stephen Jay, *Wonderful Life: The Burgess Shale and the Nature of History,* New York: W.W. Norton Company, 1990, p. 27.
02 HOFFMEYER, Jesper, "The Semiotics of Nature: Code Duality", in: FAVAREAU, Donald (ed.), *Essential Readings in Biosemiotics,* Springer: Dordrecht, 2010, p. 611.
03 GOULD, *Wonderful Life,* p. 13.





Left: *Opabinia* (https://en.wikipedia.org/wiki/Opabinia); centre: *Anomalocaris* (https://en.wikipedia.org/wiki/Anomalocaris); right: *Hallucigenia* (https://en.wikipedia.org/wiki/Hallucigenia). Indexical specimens referenced by Stephen Jay Gould in Wonderful Life: The Burgess Shale and the Nature of History.

What these and countless other examples demonstrate are the *normative* dimensions of epistemology, namely the frameworks that encode informational discovery in a particular semantic way, such that the *signification* of said discovery can take on vastly different consequences despite drawing inferences from the same informational basis. Normative frameworks that structure epistemology, such as disciplines, privileged actors and "geographies of reason",[04] sanctioned methodologies, taxonomies, modes of evaluation, not to mention the very notion of what it means to produce "objective" knowledge in the first instance,[05] not only establish the conditions for search and problem spaces, but institute a grammar of semantic organization upon the information accrued from such activities. More simply stated, normative frameworks induce a force of adaptation upon inference-making to fit existing frameworks, thereby confirming the veracity of a general world-view or valence of orientation. What makes a paradigm shift particularly interesting is less that it marks some triumphant leap from an erroneous world-view like in positivist historical accounts where knowledge proceeds in an ever-exacting, linear fashion,[06] but that our intangible normative frameworks structuring knowledge become intelligible as having been a model of reality all along, and not reality as such. What a paradigm shift ultimately implies is that despite the achievement of a normative framework to induce a particular line of epistemological inquiry and informational discovery, the semantic relevance of that discovery may undermine or overflow the constraints of the search space that enabled it. A paradigm shift is not the mere addition of new information indexable by existing structures of semantic encoding, but rather summons new sites through which to elaborate novel encodings of said information, instantiating transformed spaces of reason. A normative framework that may generate novel information may be structurally, that is to say grammatically, ill-equipped to thoroughly contend with the discovery it has brought about. It is at this point that we can specify how Euromodern knowledge practices may have been capable of constructing and recognizing a planetary condition, but the normative frameworks

04 GORDON, Lewis R., "Shifting the Geography of Reason in an Age of Disciplinary Decadence", in: *Transmodernity,* Fall 2011, pp. 95–103.
05 DASTON, Lorraine & GALISON, Peter, *Objectivity,* New York: Zone Books, 2007.
06 FEIGL, Herbert, "The 'Orthodox' View of Theories: Remarks in Defense as well as Critique", in: RADNER, Michael & WINOKUR, Stephen (eds.), *Analyses of Theories and Methods of Physics and Psychology,* Minneapolis: University of Minnesota Press, 1970.

subtending this discovery have revealed themselves both insufficient and injurious to reasoning the consequences of this recognition and the novel semantic encodings required to justly narrate it. Despite the origins of planetary recognition emanating from the sciences, this normative and semantic problem includes, but is also in excess of said disciplinary confines: it is a problem that belongs to no discipline in particular, because it can be taken up by any discipline, including that of art.

> *The price of metaphor is eternal vigilance.*[07]

While this problem of normative framework adaptation has been described within the epistemological register above, the ramifications of this tendency far exceed this domain and permeate the level of daily social organization, whether explicitly or implicitly. The *narration* of scientific bio-evolution trapped within a specific historical normative framework, not to mention the quest for understanding "human nature" via the sheer deciphering of our DNA as a basis upon which to justify our "third level" of existence,[08] namely our *artificial* or *fictional* socio-normative order, only emphasizes the long-standing propensity to draw normative meaning (oughts) from our discoveries in the natural world (what is), as Lorraine Daston has chronicled.[09] Furthermore, Sylvia Wynter has been instrumental in elaborating the *imperial* consequences of inflating a "genre of being human" to a world-view predicated on biological over-determinism, wherein "adaptive fitness" has been deployed as an excuse for racialized, gendered and classed violence, colonization, subordination as well as economic inequality.[10] It is also worth highlighting that transphobia from gender-critical advocates is also rooted in this legacy of erroneous and applied biological over-determinism to understand how active, in instrumental practice, this tendency continues to be. As noted genetic biologist Richard C. Lewontin wrote:

> *Theories of the physical body and the body politic come together in biological determinism, an ideology that both justifies current social arrangements and claims them to be the inevitable consequences of the facts of life. For sociobiologists and believers in natural meritocracies of class and sex, the properties of society are determined by the intrinsic properties of individual human beings, individuals are the expression of their genes, and genes are nothing but self-replicating molecules […] So politics becomes a branch*

07 Arturo Rosenblueth and Norbert Weiner as quoted in: LEWONTIN, Richard, "Foreword", in: OYAMA, Susan, *The Ontogeny of Information: Developmental Systems and Evolution,* Durham: Duke University Press, 2000, p. xv.
08 WYNTER, Sylvia, "The Ceremony Found: Towards the Autopoetic Turn/Overturn, its Autonomy of Human Agency and Extraterritoriality of (Self-)Cognition", in: AMBROISE, J. R. & BROECK, S., *Black Knowledges/Black Struggles,* Liverpool: Liverpool University Press, 2015, p. 217.
09 DASTON, Lorraine, *Against Nature,* Cambridge: MIT Press, 2019.
10 WYNTER, Sylvia, "On How We Mistook the Map for the Territory", in: GORDON, L. R. & GORDON, J. A. (eds.), *Not Only the Master's Tools: African American Studies in Theory and Practice,* Boulder: Paradigm, 2006, pp. 107–169.

> *of molecular biology, and our social and political institutions are as immutable as the chemicals of which we are made.*[11]

In this example of the *narrative adaptation* of evolutionary theory, which is an otherwise significant epistemological accomplishment, to fit and justify normative social arrangements, there is an underlying disciplinary over-extension at work collapsing the social into the biological. While Lewis Gordon has helpfully sketched out the problem of "disciplinary decadence" where self-enclosed disciplines are more pre-occupied with conserving their rules, canons and methods than pursuing a better account of reality,[12] another instance of this decadence can be said to occur by over-reaching a domain of relevance by operating too generally in *context insensitive* ways. It's because of this tendency to adapt discovery to existing normative frameworks, either by forcing it to fit and/or inflating its particular domain of relevance that we ought to be wary of shallow celebrations of human "adaptability". Just as Frantz Fanon coined the concept of "sociogeny"[13] to contest the sphere of biological over-determination by emphasizing the existential effects of punitive (yet fictive because artificial) normative frameworks, here "adaptation" to *given* normative conditions is both psychologically and materially injurious. With this debilitating picture of "adaptation" in mind, the proliferation of its use within the scope of the polycrisis of this historical present ought to give us pause. Like its linguistic cousin "resilience", initially imported from the physics of material science, later extended to the domain of psychology,[14] the transposition of "adaptation" from the bio-evolutionary domain carries some sobering metaphorical and historical baggage when naïvely applied (or worse, over-inflated) upon the domain of social organization. It is on this point where vigilance is required not only to more thoroughly nuance the metaphor of "adaptation" from a limited picture of merely "fitting successfully" to static environmental conditions, but also highlight the power and capacity for *inadaptation* from these normative frameworks *because* they are unnatural fictions, despite their manifestly real, structuring consequences upon forms of life.[15]

> *Given that […] 'webs of significance' are at the same time the indispensable condition of our being able to performatively enact ourselves as* being human *in the* genre-*specific terms of an* I *and its referent* We, *how can we then come to know our social reality* outside *the terms of the eusocializing mode of auto-institution in whose web-spinning field alone we are recursively enabled*

11 LEWONTIN, Richard C., "The Corpse in the Elevator", in: *The New York Review,* 20/01/1983, https://www.nybooks.com/articles/1983/01/20/the-corpse-in-the-elevator/.

12 GORDON, "Shifting the Geography of Reason in an Age of Disciplinary Decadence".

13 FANON Frantz, *Black Skin, White Masks,* (MARKMANN, C. L., trans.), London: Pluto Press, 1986, p. 13.

14 SAWARAGI, Tetsuo, "Design of Resilient Socio-technical Systems by Human-System Co-creation," in: *Artificial Life and Robotics,* 25, 2020, pp. 219–232.

15 Sally Haslanger writes about "resisting reality", which amounts to inadapting to the material manifestation of unjust social construction, such that "social construction" can no longer be pushed aside as a mere irreal idealism, but manifests as reality in structure, procedure (often legal), as well as infrastructures/technologies. See: HASLANGER, Sally, *Resisting Reality: Social Construction and Social Critique,* Oxford: Oxford University Press, 2012.

> *performatively to enact ourselves in the* genre-*specific terms of our* fictive modes of kind?[16]

This demand for *inadaptation* is not a destination nor telos, since there is no absolute escape possible from normative frameworks, or what Wynter calls "webs of significance" that enable the auto-institution of human social organization. There's no permanent state of inadaptation without a movement of adaptation elsewhere, and elsewhen. Like the way metaphors are necessary but never neutral *similes* for scientific explanation,[17] our inhabitable, concretely lived worlds are given semantic structure by models of those worlds establishing *lawlike* frameworks that are often conflated with unalterable *law* unto itself. While auto-institution is dependent on these lawlike model-worlds, the structuring and semantic interpretation of information they encode as a perspectival condition imposes an *epistemological,*[18] not to mention *axiological* obstacle, obstructing "both the process of understanding the physical world and of changing the social one".[19] The problem of coming to "know our social reality *outside* the terms of the eusocializing mode of auto-institution" is a question of how to think from without the lawlike frameworks that encode sensation and perception in a certain way, especially sense-based perceptions that are apprehended as "immediate" or "direct".[20] A procedural question emerges as an pan-disciplinary problem, that if this "outside" of which Wynter speaks is not a rehearsal of a detached Archimedean point of observation, nor an ineffable stroke of genius arriving from nowhere upon a select human mind, how can such thinking from outside *take place?* In other words, where and/or how is the site that can localize a heretofore unthought idea or ill-ramified concept?

From the Local to Localization

Since there is no thinkable thought without a world to localize the possibility of thinking that thought, the overcoming of epistemological and axiological obstacles is dependent on modeling inexistent worlds from which to enable the non-adaptive encoding of sensitivity for a speculative condition. Here, there is a great deal of potential for the domain of art since it is a field, unlike the sciences, with no disciplinary fidelity to explaining the "what is-ness" of reality. That said, capricious leaps of trivial speculation into the purely delirious realm offer only a cheap escape from the present, evacuating art of its political dimensions under the unconditional celebration of imagination. At the juncture between historical worlds, specifically the inherited conditions of Euromodernity that through its

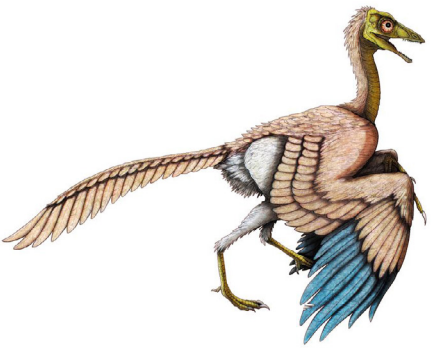
16 WYNTER, "The Ceremony Found".
17 LEWONTIN, "Foreword", p. xv.
18 BACHELARD, Gaston, *The Formation of the Scientific Mind* (MCALLESTER JONES, M., trans.), Manchester: Clinamen Press, 2002, p. 24.
19 LEWONTIN, "The Corpse in the Elevator".
20 LUKÁCS, György, *History and Class Consciousness* (LIVINGSTONE, R., trans.), Cambridge: MIT Press, 1967, p. 156. Introduced by Ray Brassier in his "The Proletariat as Subject-Object: György Lukács" seminar at BICAR, Beirut, 27/06/2023.

techno-historical path dependencies confronts us with inhabiting an environment in common for the first time in human history, and an as of yet unworlded planetary epoch, through what means can we sense and make-sense from such an entangled, multi-scalar reality that cannot be inductively accessed because it is without precedent? In a movement between the diagnostic recognition of conceptual-material what-is-ness of this world (the stuff at hand), and propositional experimentation with what could be otherwise realized, we may apply the idea of "situated speculation". Situated speculation amounts to the need to locate non-adaptive encodings of inexistent worlds from within which to comparatively sense and perceive, yet this need to "locate" is not bound to a given location necessarily, but rather demands the invention of models to localize and offer semantic valences to ideas embodied by artifacts. This can be seen as a *partial* continuity of the genealogy of site-specificity in artistic production, which, broadly speaking, adopts a *context-sensitive* ethos, including the inseparability of the adjudication of an artwork from its material and discursive conditions of exposition. The position adopted here is to assert that this context-sensitivity and a "politics of location" emanating from the legacy of site-specific artistic practices does not necessarily limit us to *given* sites readily available in the here and now that can be experienced, but can also adopt an abductive, non-adaptive function when shifting the criteria of situational attachment from the *place* of location to *procedures* of localization. It is through procedures of localization that speculative thought can be situated in the "elsewhere"[21] of an inexistent world that is not readily given to conceptual and sensuous navigation, but demands modeling. This elsewhere is not an everywhere generality, since models of inexistent worlds are both domain and scale-specific. Inexistent worlds (and the models they are predicated upon to provide particular semantic encoding) bracket a locale by articulating an artificial cut in reality, amounting to the creation of a decisive site to embed objects, concepts and, most crucially, interactions. That a work of art may be conceived as a technē of such a "cut" serves as a meta-commentary upon the field of art itself, namely its purposefulness, as well as its relationship to the organization of knowledge. In such a proposition, there is a de-emphasizing of claims on sheer "knowledge production", to experimentation as to *how* nontrivial and speculative ideas cleaved from given locales belonging to the here and now can be encountered and experienced at all, empirically and sensuously. At the heart of this situated speculation is a post-critical ethos that operates via the modeling of an elsewhere from normative, readily given "locations" at which to direct critique, to the localization of inexistent worlds from which to experience concrete possibility.

21 WOODARD, Ben, "Loops of Augmentation: Bootstrapping, Time Travel, and Consequent Futures", in PASQUINELLI, Matteo (ed.), *Alleys of Your Mind: Augmented Intelligence and Its Traumas,* Lüneburg: Meson Press, 2015, pp. 157–168.

The Game of Mandating Fictional Truths

The normative frameworks giving semantic and organizational structure to a world are often discussed as “epistemes”, following Foucault. Less discussed, and of great relevance to us artists, are the corresponding “aesthetemes” that condition perceptibility to the encodings of a world and the way stimuli within them attain a certain semantic legibility.[22] We need only look to the co-emergence of the concept of Eurohumanist Enlightenment “Man” (episteme) and *his* particular Renaissance-era space of perspectival projection (aestheteme) to localize his novel self-conception (and ground his space of reasons) in order to understand that abstract concepts are nourished by artifactual externalization for perceptual uptake.[23] In other words, it’s not enough to produce an idea without a contextualizing milieu through which said idea gains shareable, participatory and interactive semantic mobility. The semantic encodings belonging to inexistent worlds take on ludic qualities, where the game of enabling sensitivity is driven by implicit or explicit rules orienting specific imaginings. An inexistent world comes into sensibility when and where “fictional truths” can be made intelligible, dependent on what Kendall Walton calls “principles of generation” that orient imagination in a particular way.[24] Less rigid than rules by decree, these principles are rendered “objective” and sensible by way of artifacts that endow a world with shareable referentiality (i.e. interpretants look at a common object, or discuss a common scene from a novel). These artifacts act as localizing mediators for access to the particular non-adaptive semantic encoding of inexistent worlds, coordinating sensitivity in this “as-if” world.[25]



Archaeopteryx, the earliest known bird likely capable of only the simplest feats of flight. Rendering from: https://www.zeit.de/wissen/geschichte/2018-10/palaeontologie-archaeopteryx-forscher-vorlaeufer-voegel.

22 The “aestheteme” is attributed to the field of archeology (a lost reference, as Silvia Wynter acknowledges), indicating the domain of “representational arts” belonging to and reinforcing a particular autopoietic human social system. See: WYNTER, “The Ceremony Found”.

23 REED, Patricia, “The Aesthetemes of Monohumanist Man: Lessons on the Relation between Sociogeny and Techne”, *YouTube*, 05/12/2022, https://www.youtube.com/watch?v=Z4Y8dSLTkAU.

24 Ibid.

25 “As if” is used in deference to Hans Vaihinger, whose philosophical program recognized the constitutive role the “consciously false” plays in “science, world-philosophies, and life”. (VAIHINGER, Hans, *The Philosophy of “As If”* (OGDEN, C. K., trans.), London: Kegan Paul, Trench, Trubner, and Co., 1935)

As-If Empiricism and Exaptation

The as-if empiricism embodied by artifacts emanating from the encoding of inexistent worlds operates as both evidence and participatory invitation. In such an arrangement, speculative thought and situated perception are brought into dialogue—yoked and localized by an inhabitable model world to embed sensing interpretants. This schema posits that the agency of thought to unbind itself from familiar, given world semantic encodings is bound to the necessity of thought's prosthetization, catalyzed by artifactual interaction, which is to say, catalyzed by externalities. The post-critical potential to experiment with the construction of such catalytic artifacts in an abductive fashion is premised on commitments to the possibility that because we can remodel our concepts, we can also remodel our worlds. Here, we may consider this activity of remodeling in the mode of *conceptual exaptation.* "Exaptation" was coined because a term was missing in the taxonomical conventions in evolutionary biology, its omission from the discourse a symptom of a certain ordering and prioritizing of ideas about the structure of reality, wherein taxonomies can be seen as linguistic fossils, indexing "substantial changes in human culture".[26] Distinct from adaptation, which is often confusingly used the describe both a process and a state of being, exaptation accounts for the co-optation of existing structures, not intended for their current role as built by natural selection, like the feathers on a bird once adapted for the *function* of warmth that now have the exaptive *effect* of enabling it to take flight. Because we are conjoined to reality through the mediation of model-worlds, a suturing that manifests a semantic environment for inhabitation, our conceptual models take on trait-like features regardless of their exosomatic existence. Particularly as eusocial creatures (but by no means exclusive to us), we not only inherit what is internal to us, like our genes, but also the impersonal environments within which we transact with reality. It is precisely this co-constitutive exosomatic inheritance of a historically contingent environment that biological over-determination instrumentally neglects, encoding "fitness" at the level of the individual to adapt to a given, pre-existing niche-sites—as if said "niche" is a law by nature and not the in-part manifestation of our artifice. When "the planetary" is predicated on the recognition of an environment in common that is increasingly tipping towards conditions of inhabitability, inadapting to the model-worlds lubricating such inhospitality requires mobilizing the possibility for reorienting the exaptive *effects* of our adaptive *functional* traits. The capacity to remodel self-understanding from the perspective of a situated interpretant in an inexistent world enables us to perceive how the *effects* of that remodeling come to redefine and transform an environment in the process, embedding us in unfamiliar worlds commensurate with the demands of planetary dimensionality.

26 GOULD, Stephen Jay & VRBA, Elisabeth S., "Exaptation-A Missing Term in the Science of Form", in: *Paleobiology,* 8(1), 1982, pp. 4–15.

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Kaja Kraner

ADAPTATION OF BODIES AND MATTER THROUGH THE PERSPECTIVE OF FORM-CREATING PARADIGMS

From the viewpoint of the genealogy of form-creating practices, what we are dealing with in relation to the environment or a specifically natural environment is, in principle, a separation, alienation from what is directly perceived and experienced, and at the same time production of resemblance with what is being alienated, where we can broadly distinguish between two fundamental form-creating paradigms: the production of resemblance based on delineating and delimiting (senses, bodies, forms) and resemblance through contact, both of which, at least to some extent, can be understood as homologous to the specificities of the two key fine art media, painting and sculpture.[01] Thus termed, the resemblance that delineates and delimits can be linked to the theoretical definition of painting in *Della Pittura,* where Alberti explains what is and what is not in the domain of painting: the painter should strive, first and foremost, to paint only what can be seen, whereas the things that cannot be seen are not within his domain. The painter's task is to use lines and colors to outline the visible surfaces of bodies—i.e. the entities that occupy space—in such a way that what is outlined appears plastic and very similar to real bodies; to fill the space of the painting with bodies and at the same time to appropriately accommodate its voids, which cannot be simply filled up. From this point of view, painting is, in fact, the art of establishing a dynamic balance between the full and the empty in the environment of the painting, to which end the painter has two fundamental formal tools at his disposal, geometry and story, which together allow him to establish a readable yet dramatic and interesting relationship between bodies and the environment, thereby transforming the environment into a scene, while the bodies, through gestures, positioning, interrelationships, etc., silently tell a particular story.[02]

In terms of arranging the visible on a surface, having at its disposal geometrical tools for articulating and organizing this space (say, according to the grid principle) and organizing the visible elements into a readable story, painting—before the norm of the painting as a window into the world was established—is to some extent similar to writing, where the visible is equated with the imaginable, with that which can be named.[03] What images as two-dimensional codes and writing as a linear code have in common is that they are both based on reducing three-dimensional spatio-temporal situations or circumstances to a surface, where images are based on scenes that can be perceived at once (even if in the reading process, the eye that captures the whole scene must travel over the image or synchronously diachronize what is presented), whereas texts are supposed to be more distanced from concrete experience since they are based on the operation of transforming real situations into images, and then images into concepts, and at the same time on the synchronization of the diachronic or, rather,

01 From the viewpoint of this basic distinction, graphic arts are, for example, a hybrid, because they are simultaneously optical, spatial, physically inscribed into a space, in (negatively and positively) relief, and based on the contact of two spaces-surfaces.

02 ALBERTI, Leon Battista, *On Painting,* Cambridge University Press, 2011, pp. 49–73.

03 DAMISCH, Hubert, *Theory of Cloud: Toward a History of Painting,* Stanford: Stanford University Press, 2002, pp. 178–190.

on a linear code,[04] which historically is also supposed to produce a new experience of time, linear time, and, indirectly, historical consciousness. Painting, which organizes the visible on a surface and visible elements into a readable story, also implies an understanding of form as the contour of the thing whose opposite or correlate is matter or substance. According to this logic, painting, which—like all Western art traditions—historically defines itself in a certain relation to nature, implies a somatization and matterless nature based on "the systematic elimination of matter from form".[05]

In Western form-creating history, there is, in addition to Alberti's paradigm of painting, also the model of the production of resemblance based on alienation from the directly perceptible and experienced, and therefore also on the immersion in privacy, which is more akin to technical tools than to the technique of writing; in Didi-Huberman's words, the production of resemblance through contact. In the most general terms, resemblance through contact is the result of a technical form of imprint, which is originally based on the imprint as motion: it is a mark made by pressing a body against a surface (of a body).[06] Understood in this way, the imprint can be seen as the common starting point of proto-writing, proto-image, and proto-design, which are all based on the body's adaptation (movements, gestures derived from musculature, etc.) to the laws inherent to matter (for instance rock) through technical tools (for instance a stone given in nature, which enables the transformation of another stone given in nature). The common point of these forms of alienation through technique (of writing, of the image, and of shaping matter/substance) is that what is established through the process of production or transformation is the Aristotelian distinction between natural artifacts, which possess a nature (i.e. the principle of change and stasis) that essentially belongs to them and is within them, and artificial artifacts, which resist change, are the product of a certain intentional action and require recognition.[07]

Indeed, the first technical tools that enable alienation from the directly perceptible, and of which the first (re)designed artifacts can be regarded as an equal part, are most appropriately considered in terms of Simondon's notion of technology as an ensemble, due to the entire interplay of the human body, mind, action and intentionality, technical tools, and natural matter/substance. To some extent, an ensemble should be distinguished from an assemble (also: an assemblage, collection or aggregation that forms a group/unit), as it is more fittingly understood as a coordinated unit or set that performs a particular operation: it is not a definable object, but rather the relationships between tools/machines, their users, the environment, and the materials with which they interact. The creation of resemblance through the imprint as an archaic form of representation and design is not originally based on the distinction between the idea of the final

04 FLUSSER, Vilem, "Digital Apparition", in: DRUCKREY, Timothy (ed.), *Electronic Culture: Technology and Visual Representation,* Aperture, 1996, pp. 242–245.
05 GRANT, Iain Hamilton, *Philosophies of Nature after Schelling,* Continuum, 2006, p. 34.
06 DIDI-HUBERMAN, Georges, *Podobnost preko stika: arheologija, anahronizem in modernost odtisa,* Ljubljana: Studia Humanitatis, 2013, p. 25.
07 ARISTOTLE, *Fizika: knjige 1, 2, 3, 4,* Ljubljana: Slovenska matica, 2004, pp. 119–121.

product, the exact knowledge of what the body can do, and the knowledge of different materials and their laws, which would allow a pertinent choice according to the purpose and idea, but is more about experimenting with what the body's matter is capable of in relation to some other matter. As in the case of initial writing, which presupposes the "liberation of the hand", it is originally a kinetic activity; graphic inscription, as the common basis of writing and image, is thus initially a recording of the rhythmic, circular (centripetal or centrifugal) motion of the body.[08]

In a fashion similar to technology as an ensemble, the imprint as a technical dispositif presupposes and includes a media carrier or surface, a movement that reaches this media carrier/surface (usually a gesture of pressing or some kind of contact), and a mechanical result, which is a (recessed or embossed) mark. As Didi-Huberman points out, the gesture of imprinting is above all the experience of a connection, the relationship that the emergence of a form has to the "imprinted" surface: it is a coming together that can produce something unexpected, which is also evident in the historical thematizations of this technical dispositif, which are often considered to be magical. The proximity of the imprint as a proto-sculptural mode of producing similarity and technical tools, however, is mainly related particularly to the fact that the imprint is characterized—in addition to a less predictable openness, resulting from the properties of matter/substance, movements, and gestures—by a certain predetermination, a proceduralism, almost a seed of technical automatism, where the producer's position could already be considered as that of an assistant or mediator of the technical dispositif.[09]

The case of two artificial or indeed artistic form-creative paradigms of alienation from what is directly perceived and experienced and the simultaneous establishment of resemblance clearly presuppose certain violence. The violence of reducing the perceptible to the visible, the visible to the imaginable, but also the violence of delimitation, of establishing a boundary between the body and other bodies, and between bodies and the environment. In the case of Alberti's paradigm, this delimitation takes place analogously to the elimination of matter/materiality from form, conceived as the way in which materiality manifests itself or is structured.[10] It is precisely in this aspect that it can be linked to the notion of

08 NAIL, Thomas, *Theory of the Image,* Oxford: Oxford University Press, 2019, pp. 101–129.

09 "The point of view of the working man is still too external to the process of taking form, which is the only thing that is technical in itself. It would be necessary to be able to enter the mold with the clay, to be both mold and clay at once, to live and feel their common operation in order to be able to think the process of taking form in itself. For the worker elaborates two technical half-chains that prepare the technical operation: he prepares the clay, makes it malleable, without lumps, without air bubbles, and correlatively prepares the mold; he materializes the form by making it into a wooden mold, and makes matter pliable, capable of receiving information; then, he puts the clay into the mold and presses it; but it is the system constituted by the mold and the pressed clay that is the condition of the process of taking form; it is the clay that takes form according to the mold, not the worker who gives it its form. The working man prepares the mediation, but he doesn't fulfill *[accomplit]* it; it is the mediation that fulfills itself on its own once the conditions have been created; even though man is very close to this operation, he does not know it; his body pushes the mediation to fulfill itself, enables it to fulfill itself, but the representation of the technical operation does not appear in work. It is the essential part that is missing, the active center of the technical operation that remains veiled." (SIMONDON, Gilbert, *On the Mode of Existence of Technical Objects,* Univocal Publishing, 2017, pp. 248–249)

10 This operation is not, of course, confined exclusively to the field of representation or art in relation to nature, since it is a general characteristic, which is, for instance, also the foundation of the modern development of science

mimesis, which is originally an ontological concept, referring to the way of being and coming into being of things. In the narrow sense, it means a reproduction, a copy, a duplication of what is already given, already made, or already provided in nature, whereas in a more general sense, *mimesis* does not reproduce anything given, but complements (replaces) a certain deficiency of nature (a segment of a natural landscape, a natural artifact or, indeed, human nature itself). Such an understanding highlights the productive aspect of nature and the artificial: *mimesis* of art is not a reproduction of the visible/perceptible, but rather an autonomous, independent (i.e. not subject to the natural order and laws) production by means of a technique homologous to nature's creativity. It is an imitation of nature's creative force that "makes visible", yet the imitation of the structure of the visible is not necessarily reduced to optical appearance, as it can also be an imitation of natural growth and genesis of forms. In the production of resemblance through contact, however, we are clearly dealing with violence against matter/substance and violence of giving shape or informing (literally: putting into form), which is the starting point of the notion of arbitrarily reshaped matter/substance as passive and yielding (hylomorphism). In both cases, form-creating violence can to some extent be brought close to the self-formation of biological organisms, which presupposes cell destruction (apoptosis): "[I]n order for fingers to form, a separation between the fingers must also form. It is apoptosis that produces the interstitial void that enables fingers to detach themselves from one another."[11]

Adaptation of Aerial and Plastic Bodies

The distinction between the two form-creative paradigms allows us to distinguish schematically between types of adaptation. Within Alberti's form-creative paradigm, which is confined to delimiting bodies from their environment or, rather, to reducing bodies to the visible outline, the theme of adaptation, for instance, opens up in parallel with the problem with which it collides when it has to welcome into its environment bodies or things whose outline cannot be determined with lines, or bodies that do not occupy any place or that cannot be measured.

and specifically natural history, which is supposed to follow the newly established separation between words and things that is also reflected in methodological innovations. Although empirical observation has been at the forefront of science since the second half of the 17th century, it is no longer based on classic similarity, but on the analysis of observable features. Such an analysis does not capture natural things as organisms, i.e. also in their function (which is a characteristic of modernity in general), but rather turns first and foremost into nomination of the visible (FOUCAULT, Michel, *The Order of Things: An Archaeology of the Human Sciences,* London and New York: Routledge, 2002, p. 144), which foregrounds the sense of sight, by which we "perceive extent and establish proof" (ibid., p. 144). Here, the organic and inorganic are methodically captured in their universal comparability, rescued from sensuous qualities that highlight their particularity or individuality. When the object of science are not the natural laws of dynamics or the logic of changes, but bodies or organisms, what comes to the foreground are refined objects in the form of lines, surfaces, shapes, and reliefs, i.e. the formal structure of objects. (Ibid., p. 145) Only in this way can the already inscribed objects become the subject of a linguistic description that will function as a secondary language, which can also be understood as analogous to the relationship between the painting and the image, where the painting is a specifically organized surface, while the image presupposes the investment of a secondary language that places it on the terrain of rhetoric and enables the production of meaning.

11 MALABOU, Catherine, *Ontology of the Accident: An Essay on Destructive Plasticity,* Cambridge: Polity Press, 2012, pp. 4–5.

By analyzing Renaissance painting, which in principle established the norm of the painting-window and the linear-perspectival organization of the environment of a painting, Hubert Damisch examined this problem through the example of depicting clouds, formless bodies whose contours are difficult to fix and whose shapes are difficult to analyze with the terminology of surfaces. In addition to clouds, which belong to the category of bodies without a surface or a precisely definable shape and therefore have the status of a foreign body, this framework may also include phantasms, dreams, and celestial spaces, where there is no gravitational force at work that would position bodies in certain places, and in which forms disintegrate in relation to the matter of light. Based on the analysis of Correggio's work, Damisch shows that a cloud can have many of the denotative functions listed: it can be "just" a cloud and the starting point of the so-called aerial style, but it can also incorporate the sign of the presence of God into the composition, denote the bearer of an unearthly body, the difference between the register of the earthly and the celestial, the process of metamorphosis, ecstasy, or even the "intellect, liberated from terrestrial desires, rising into the heaven of contemplation".[12]

In pictorial practices, the cloud as a partially formless body does not only have the status of a motif or a means of depicting more distant bodies (the aerial perspective, for example, refers to the effect of the atmosphere on the appearance of a distant body), but it can also be a means of designating ontological differences between different bodies in the same environment of a painting, and to some extent also of designating different ontologies of the environments themselves, in order to, for instance, distinguish between a world that follows natural laws and a dream or imaginary worlds that are constantly changing, moving, deforming, becoming. Dream spaces—to some extent similar as in Correggio via Damisch's reading—suggest a contrast between the construction of space tailored to the human body (to which the state of wakefulness is committed) and the non-anthropomorphic construction of space, which can grow and expand uncontrollably, and therefore also implies, or imposes, specific motion and orientation. In this sense, dream space shies away from geometrization or, rather, from the tendency to define spatial relationships, construct tools for orientation, and measure spatial relationships. Even if it is not possible to envision a human being outside of space and if on the experiential level the first experience of the spatial is a home/house (which can also refer to the body as a domestic dwelling, hence, for example, the analogy between a house and skin), geometry—beyond implying architecture, where it is the body that dictates the sizes, positions, transitions, and organization—also implies a certain aspect of territoriality, i.e. spatiality that is under jurisdiction. The difference between the two types of space or environment can to some extent also be illustrated with regard to the spatial-aesthetic relationship the body has to architecture: on the one hand, the physical entry into it, where so-called unfocused vision is at work, on the other, the visual capture,

12 DAMISCH, Hubert, *Theory of Cloud,* p. 22.

where architecture obeys the control of the eye and, through a clearly identifiable focal point, stabilizes, "grounds" the perceiving body.

Various more or less formless and foreign bodies imply a relationship to the environment (or a relationship between the figure and the background as the foundation of the human aesthetic field) that does not fully follow the logic of the outline or the determination of a precise location in the environment of a painting, which therefore both reproduces and violates the rules of the linear-perspectival organization and points to the limitations and structural exclusions of this code. Alberti's paradigm of painting therefore opens up the possibility of adapting by way of layering, stacking, and/or disappearance of layers, which must be separated from the planned construction of the depth of the environment of a painting, since the formless and foreign body penetrates into the structure of this environment, and the embodiment of this type of body therefore distorts its ontological and formal foundation. The placement of such bodiless and foreign bodies into the environment could therefore also be considered through the analogy of liquid or gaseous substances that imply dissolution and evaporation, as well as through the phenomenon of veils and folds. Like a cloud, a fold in this case is again not necessarily only a motif, a mode of existence of the fabric's material, a means of dramatizing a scene or simultaneously presenting a situation that has the status of the real and of a vision or a dream scene. The fold is also not necessarily only a means of denoting the type of figure through the type of a fold and fabric and of distinguishing the figure from the background, but can also allow the coexistence (at least in the environment of a painting) of different formative codes that are grounded in different positions of looking: the position of looking at spectacular reality (the order of rhetoric, also: the folding of cells, the motion of bodies), and the scientific perspective (the order of the signifier, also: the chart or the coordinate system).[13] In the mimetic pictorial history within Western culture, the fold can therefore function as a kind of phantom limb of an image within an image, or a foreign body that points to the limits of representation or to the very nature of representation itself.

At the level of the production of forms through the perspective of resemblance by contact, adaptation can be considered through the analogy of different plastic materials, which to a greater or lesser extent maintain a balance between receiving and giving shape; in short, they are to a certain extent adaptable and capable of engaging in a dialogue with their environment. The relationship between the body and the surface (of the body) can in this case be thought as a space of coming together, where adaptation does not arise from the immanent properties of matter/any body, but is the result of this coming together. From a nanotechnological perspective, such an encounter is in fact continuous, it is not the result of a specific action but rather of a scale, and as there are no clear delimitations between various bodies made of various materials, what appears to the eye as a boundary (which is also why we can perceive distinguishable bodies

13 ROTAR, Braco, "Preganjeno robovje", in: *Govoreče figure: eseji o realizmu,* Ljubljana: DDU Univerzum, 1981, pp. 67–72.

or relationships between bodies and the environment) is in fact "a material region, a marginal area with its own mass and thickness, characterized by properties that make it radically different from the bodies whose encounter produces it".[14] In short, the location that corresponds to Alberti's paradigm of "it (the body) is there" or "here is the boundary" is already the result of a (perceptual) mapping of space, of a transformation of space into a territory, or of a scientific mapping of natural processes: bodies appear as a unity, or stick together mainly because of standardized scales.[15]

The form-creating paradigm of resemblance through contact is, needless to say, not based on mapping (and the violation of mapped spatial relationships), but is rather about deformation, modification, i.e. about the result of the antithesis of elasticity as a potentially full capacity of wielding received energy, which would allow to restore the original form. In this sense, the result of coming together is a kind of scar, just as in psychoanalysis, for example, mental life is the result of indestructible imprints that shape the subject's mental destiny. But what form does the scar take? If we take the example of less flexible bodies: bones or bone mass are cellular or tubular in structure and can break in places or only fracture or crush as a result of overloading, but in the third phase of healing, the so-called remodeling phase, they partly retain their original shape (and supposedly even become slightly stronger in the fractured or crushed parts), and the scar is nodular in shape. Although bones do possess a certain degree of flexibility, nodularity is not the result of the anticipation of injury, but rather of the creative destruction that results from the plasticity of bone mass. We could say that, in the sense of form, nodularity is a type of a fold that is not the result of motion or the material's properties, but precisely of creative destruction, it is a by-product of a temporary entry into a transformative (technological) ensemble.

After the Separation of Painting and Sculpture: The Example of Land Art

Both form-creative paradigms that can roughly be understood in analogy to the specific characteristics of the two key fine arts media—painting and sculpture—are of course situated historically, as is the overcoming of traditional divisions between art media that is usually dated to the mid-20th century and onwards. Overcoming media divisions follows the introduction of the paradigm of art as an information-sign formulation rather than as the establishment of relationships between bodies and the environment. In the context of the modernist painting as a table/grid, as a space into which signs (lines, points, numbers, etc.) are inscribed, the problem of different ontologies of bodies and environments, which is analogous to the painting-window, is therefore reoriented towards different types of signs and signifying systems. From the second half of the 20th century onwards, the exterior of the delimited environment of a painting or a sculptural body, separated from its environment by a pedestal, gradually begins to act as an

14 TRIPALDI, Laura, *Parallel Minds: Discovering the Intelligence of Materials,* Falmouth: Urbanomic, 2022, p. 9.
15 PARIKKA, Jussi, *There Is Plenty of Room in the Simulation,* Ljubljana: Aksioma, 2023, p. 7.

integral formal part of artworks, which, from the perspective of semiotic analysis of art history, can be explained through the introduction of non-evocative abstraction or, rather, what Braco Rotar refers to as information-abstract visual formulations.[16] The meaning of such visual formulations is derived mainly from the perception of obvious, quantitative, or otherwise quantifiably ordered relationships between individual visual units: elementary units of visual formulation are in this case "reduced" to geometric shapes, which are composed of basic visual elements and variables and possess certain qualities that can be combined according to purely aesthetic rules, where combining as such adheres, in principle, to certain logical and, in the case of computer-generated art, scientistic principles. In such visual formulations, the traditional European division of the fine arts into painting, sculpture, and architecture should gradually be transcended because these are generated based on primary structures, such as color, form, material, and voluminosity, where the latter in a certain sense enables their interactions. In short, they begin to operate more evidently and above all literally as a body in a given environment and presuppose, for instance, an antecedent transformation of the sculptural figure into an object, the elimination of the pedestal that separates the object from the environment in which it is situated, the affirmation of the surface and the perceptual physicality of the material. Such formulations are therefore often based on a specific correlation between the formulation and the environment, where the formulation becomes involved in the visual structure of the space it is in (i.e. not only the space of the painting canvas but also the space in which the canvas is situated), yet this same space also determines the success of the formulation.[17] In so-called primarily structural abstract formulations of this type, the environment is therefore an equal element from which the formulation is derived, not something to which the formulation must yield.

The environment as an integral formal part of the artwork was introduced to the field of contemporary art more directly especially in minimalism, i.e. in the period when various traditional ways of producing similarities, illusionism, and allusions in the field of fine arts practices had already been largely eliminated, and when autonomous languages of each artistic medium had already been fully formed, as had been the classical fine-arts-theoretical approaches to artworks, centered on visual language. The possibility that the environment can become an integral formal part of the artwork is, as mentioned above, nevertheless based on the condition of a general expansion of visual formulations, which are mainly based on the composition of pure signs, whose meaning is entirely the product of convention. Examples of pure signs are, for instance, basic visual elements, which in themselves have a similar semantic function to letters or numbers; in this context, we can draw attention to the concrete example of the basic visual elements of color, which (although it evokes a certain aesthetic response) typically conveys meaning precisely through comparison with other elements and social conventions (for instance, a particular color may carry conceptual symbolism).

16 See: ROTAR, Braco, *Likovna govorica,* Ljubljana, Maribor: Državna založba Slovenije, Obzorja, 1972, pp. 85–231.
17 Ibid., p. 293.

Visual formulations, which are mainly based on composing non-allusive visual units, are generally expanded upon so that they must first be perceived as discernible elements; only then can the selection and distribution of the transparency code organize them into a specific visual formulation. In concrete terms: the general expansion of abstract art from the early 20th century onwards presupposes that we grasp, perceive, and become fully aware of perceiving the fact that, say, the environment of a painting is a surface on which fundamental visual elements are arranged in a certain way. It is no coincidence that the modernist movement against non-allusive visual formulations from the late 19th century onwards runs parallel to the development of the psychology of visual perception, through which the idea that a visual message consists of simple elements—the atoms of visual communication—became generally accepted. In short, the modernist movement towards non-allusive visual formulations is based, among others, on the historical idea of how the human perceptual apparatus "composes" (disassembles, selects, and assembles) in the process of perception. We could say that the connection between the artwork and the environment can only be eliminated as an important aspect for the analysis of concrete artworks when the representative, allusive, evocative, etc. connection between the artwork and the environment is completely severed. At the same time, we could say that it is only when the environment is eliminated from the ways of signifying the artwork that it can reappear in a specific way as a meaningful element of a visual formulation.

If land art, closely related to minimalism, is analyzed from the perspective of the two basic form-creating paradigms set out above, it seems that artworks—at least the very first works from the late 1960s—follow the hybridity inherent to graphic arts. As we have already mentioned, graphic arts are optical, based on physically making imprints into a space, have a negative and/or positive relief, and are based on the contact of two spaces-surfaces. Early land art thus unites, in principle, the treatment of environment or natural landscape as a surface and as a background with the artwork functioning as a kind of synthesis of their interaction. At the same time, land art is based on the manipulation of the environment as a material, where artists, by adding, removing, or relocating local natural materials, create forms/sculptures in continuity with a minimalist exploratory focus on materiality, elemental geometry, and setup, and where the focus is also on the relationship between the existing features of the environment and the evidence of human intervention. In short, what we have here is, in principle, a two-way inscription, imprinting, and contact: the environment encroaches upon the body-artifact, and the body-artifact dissolves into the environment.

A good example of this is Robert Smithson's canonical land art work *Spiral Jetty* (1970), which is particularly interesting because inscription, imprinting, and two-way encroachment of the body and the environment are not only a product of the artist's action and natural processes (weather, erosion, tidal waters, etc.), but are also connected to the form as such. Although Smithson, like other land artists, was influenced by the simultaneous development of aerial photography and astronomical imagery, the early development of scientific visualizations,

and depictions of the Earth as a system, as a result of which the natural landscape "begins to look more like a three-dimensional map than a rustic garden",[18] the 460 m long and 4,6 m wide spiral protruding from the shore of the Great Salt Lake does not function, strictly speaking, as a symbol for the viewer (who would, for example, draw on many different cults and cultures where the spiral is a symbol of spiritual evolution, unity of man and the universe, etc.). Most of us have probably seen the spiral, which is made of mud, precipitated salt crystals, and basalt rocks, and is not actually imprinted but "superimposed" on the environment, on reproductions from a bird's-eye view; however, when at the site, human spectators always see the spiral only partially. If they can see it at all, as the work was almost completely submerged for a certain period, then visible again due to a prolonged drought. On the one hand, at the site, the spectator does not see Smithson's spiral as a line but as a collection of punctuated units which, from the right distance, can appear as a partial fold; on the other, if one gets close enough and enters, the spiral is in a sense also a linear labyrinth, a counterpoint to the linear path leading to one's own interior. In short, the spiral shape is, in principle, not entirely recognizable to the human eye. Paradoxically, from a bird's-eye view, the spiral almost appears to be the result of a micro-view, as part of a unicellular organism. The work therefore implicitly evokes the idea that micro- and macrocosm are inter connected, which is immanent to the pre-classical episteme,[19] to many indigenous cosmologies, and to modern occult movements; to some extent, this can be corroborated by Smithson's own words from a documentary film on how the work was constructed, suggesting that the history of the Earth as a story or a set of graphic signs is inscribed in the "book of nature".

Before it became a symbol, the spiral, as a variation of the circle, was genealogically linked to centrifugal motion, which is at the core of both the first proto-design product by which humans succeeded in containing matter beyond the possibilities of their own body (i.e. the vessel) and the first proto-technical devices (caves, hearths). Clearly, this form can also be found in nature, either as a more or less random graphism, in the sense of phyllotaxis—patterns of natural growth, such as a spiral arrangement of leaves so that they do not cast a shadow on one another—or as a sign of repeated centrifugal motion, motion towards the center, cyclical motion, or motion that returns to itself (the alternation of seasons, of day and night, of wakefulness and sleep, growth, aging, interior and exterior, etc.). From the viewpoint of the genealogy of form-creative approaches, the spiral is, in principle, a pre-linear form, i.e. a form that precedes the organization or mapping of the environment (of a painting) as a grid. According to the dictionary definition, a spiral is a curve in a plane that winds around a fixed center point at a continuously increasing or decreasing distance from that point, or, alternatively, a three-dimensional curve that rotates around an axis at a fixed or constantly changing distance while moving parallel to the axis; however, from the viewpoint

18 SMITHSON, Robert, "Aerial Art", in: FLAM, Jack (ed.), *The Writings of Robert Smithson,* Berkeley, Los Angeles, London: University of California Press, 1996, p. 116.
19 FOUCAULT, *Order of Things,* pp. 35–50.

of three-dimensional formative modes, the spiral is also a fold of some kind and can, from the viewpoint of two-dimensional form-creating modes, be considered close to Klee's active "on a walk, moving freely, without goal"[20] line, which can be characterized by the elastic points of a crease and is therefore not necessarily a tool for outlining and delimiting or, rather, separating bodies from the environment.

If we ignore the speculation that Smithson chose the form based on local myths about the origin of the lake, which itself is a foreign body within an environment, we can surmise that the shape was designed to communicate with the environment with which it comes into contact, which—conditionally speaking—it encroaches upon, or which encroaches upon it to the point of dissolvement, which is why the work is often in need of restoration.[21] Smithson's spiral doesn't draw a bare line or enclose a piece of territory/water and make a shape-body (and thereby also separates the environment and the body/figure), nor is it, strictly speaking, the construction of a body foreign to the natural environment, a bare addition. In the North American tradition of land art, it is certainly possible to point to a multitude of artworks that, in relation to the natural environment in which they are placed, act as foreign bodies at the level of the materials used. One of the more famous of these works is certainly Smithson's *Asphalt Rundown* series, created between 1969 and 1970, in which a truckload of hot asphalt was poured down the steep embankment of a quarry in the south of Rome, which was interpreted by some as an ecological gesture, since the work was meant to allude to the image of an oil spill, and by others as an imitation of nature's inherent ability to create sculptures, such as the eruption of a volcano, out of liquid-plastic substances. In this same tradition, it is also possible to highlight several works that function as a foreign body on the level of introducing geometric forms into an "organomorphic" natural environment, for example Michael Heizer's monumental work *City* (1970–2022), James Turrell's *Roden Crater* (1977–) or Walter De Maria's well-known *The Lightning Field* (1977), all located in a desert environment that is "alien to humans".

Spiral Jetty, however, is neither placed on the ground, nor does it protrude from the ground into the sky. It is not a foreign body simply because it is of a certain shape, because it introduces synthetic materials into the natural environment, because it is a sign of human presence, or even because it is a sign of human presence that is perceived as foreign for a certain reason (the case of monoliths, ancient sacred stones, etc.). Nor because it disappears and reappears like a ghost. If no other positive claim can be made, Smithson's spiral is certainly foreign in terms of the form-creative paradigms outlined above, since it summarizes practically all of them to an extent, but none of them fully: it is a line, but not an outline; it is an active line, but is not purely accidental; although it is an outline, it is not a fully outlined figure-body in the environment; although it is not a sculpture, but more an inscription in the environment, it is not the bare

20 KLEE, Paul, *Pedagogical Sketchbook,* New York, Washington: Praeger Publishers, 1960, p. 16.

21 Had Smithson not passed away in 1973, he could very well have rejected the restoration—his work was ultimately based on the exploration of and fascination with entropy, where works are meant to mimic earthly attributes in the sense that they are to remain in a state of suspended disruption or that their destruction cannot be prevented.

result of an inscription into the surface/space of the environment; it is not, strictly speaking, a mere sign, nor is it a formless shape, etc. Like Correggio's clouds, *Spiral Jetty* suggests that foreignness is based on, or derives from, multi-sensory plasticity and adaptation, on hybridity, active or active indeterminacy, and evasion (neither-way or neither-nor).

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Michal Novotný

MUSEUM, OR A TOMBSTONE

> *"They told me that, according to the most advanced theories and techniques in every field, based on extensive theoretical research and experimentation, through analysis and comparison of multiple proposals, they did find a way to preserve information for about one hundred million years. And they emphasized that this was the only method known to be practicable. Which is—" Luo Ji lifted the cane over his head, and as his white hair and beard danced in the air, he resembled Moses parting the Red Sea. Solemnly, he intoned, "—carving words into stone."*
> —Liu Cixin, *Death's End*

Joseph Beuys's sculpture Felt Suit from 1970, which is part of the Tate Modern collection, was infested by moths in 1989. It took six years for the curators and conservators at the museum to finally declare that the damage was beyond repair and, after consulting with the artist's widow, to decommission it and place it in the Tate archive. That "statues also die"—which is the title of a famous movie by Chris Marker, Alain Resnais and Ghislain Cloquet—holds true not only for the violently decontextualized objects placed in the museum under the Western gaze, but also for the actual Western museum collections despite all the efforts to immortalize them.

In many cultures, objects can be separated from their authors to be copied, changed, or improved, but in the modern aesthetic regime, the art object, considered a unique expression of the artist's self, becomes an inalienable possession.[01] This status began to be formally codified with the first copyright laws in 18th century and resulted in the revised Berne Convention for the Protection of Literary and Artistic Works of 1928, which formalized a new type of rights, stating that "independently of the author's economic rights, and even after the transfer of the said rights, author shall have the right […] to any distortion, modification of, or other derogatory action in relation to the said work".

Artworks in our culture thus undergo a certain transfer of subjectivity. We see them as authentic reincarnations of their authors. But galleries and museums that eternalized these transferred gestures into autonomous artificial environments are also "ecological forms, which have to be built, achieved, and sustained in and through the world",[02] or in other words—places that need to be perpetually brought into being. Modernity, as we know it, only runs within a very specific ecological environment.

The boom of taxidermisation that began in the second half of the 18th century was directly related to the demand for exotic presence at a time when travel was still unavailable to most. The first patent for a steel-glass vitrine[03] to protect taxidermies from pests comes from the same period when first public art

01 DOMINGUEZ, Rubio, *Still Life: Ecologies of the Modern Imagination at the Art Museum,* Chicago Press, 2020.
02 Ibid., p. 35.
03 SPRINGER, Anna-Sophie & TURPIN, Etienne, "Compensatory Postures: On Natural History, Necroaesthetics and Humiliation", in: GARCIA, T. & NORMAND, V. (eds.), *Theater, Garden, Bestiary, A Materialist History of Exhibitions,* Sternberg Press, 2019.

museums were established. However, the real change took place at the beginning of the 20th century with the emergence of combined heating, ventilation, and air conditioning systems, which allowed us to create an entirely new climatic regime that promised to preserve collections for all eternity.

At 35 °C and 80% relative humidity, a paper-based artwork can last only about three years. At 20 °C and 50% relative humidity, the lifespan of the same artwork increases to about 100 years. And at 10 °C and 40% humidity, paper can last up to 1200 years. However, it must be preserved in total darkness, as light itself is the main enemy when it comes to cellulose, pigment, ink, and dye preservation. More complicated preservation methods are related to plastic materials whose lifespan under natural conditions is only about two decades. In 1996, Museum of Modern Art in New York established the Celeste Bartos Center, devoted to presenting audiovisual works kept in controlled conditions: walls, ceilings, and floors are insulated to keep a constant temperature of 13 °C and a relative humidity of 30%. The storage space is further divided into vaults containing different audiovisual artefacts. The black-and-white prints are kept at a constant 7 °C and 30% relative humidity, while those containing color prints are placed just above freezing at 1,7 °C.[04] Needless to say that a lot energy is required for such preservation. Keeping storages running is one of the largest expenses in the operating budget of all modern type museums. Furthermore, considering the fact that, statistically speaking, about 90–95% of works in public collections will never be put on display, the natural environment of a work of art is airconditioned storage.

With regard to climate change and its social impacts, it is questionable whether such modes of preservation will prove sustainable, not only in the promised prospect of eternity, but even in the much shorter outlook of about 30 to 50 years. The image of rescuing major works of art rather than human beings at the dawn of the apocalypse is part of our collective fantasy portrayed in many cultural narratives. This specific superterrestrial position ascribed to art is mirrored in art vandalism not being only a crime but an act against humanity. In Europe, it is for the most part legally impossible to de-acquisition public collections. For example, to decommission even a single artwork from the collection at the National Gallery Prague would require approval by the Czech parliament. However, for the same reasons related to cultural impact, art has been selected as an important and meticulously recorded target of both ISIS militants and climate activists.

In the naturalized imagination, the museum is collecting, preserving, and displaying art. But as we have seen, it rather keeps art alive, often through infrastructure resembling an intensive care unit. What will happen to art when it becomes impossible to keep this infrastructure functional due to climate change and its social impact, when the specific environment in which art has lived and survived for over one hundred years will disappear? In Liu Cixin's book *Death's End,* the human race, doomed to recede with the entire solar system into the second dimension, creates the Earth Civilization Museum. After extensive

04 Ibid., p. 228.

research, mankind realizes that the only way to preserve information over eons is to carve it into stone. The two main heroes are then asked to spread the masterpieces such as Van Gogh's *Starry Night* or DaVinci's *Mona Lisa* into outer space, so that after the recession in 2D the information would be better preserved than inside the bunker-like museum on Pluto. In addition to describing the duo's process of selecting the artefacts, for instance the Neanderthal skull, that are to be left behind, the book also underlines that what we call a museum is actually a tombstone.

The quest towards immortality, as presented in the ancient *Epic of Gilgamesh,* often turns into the construction of tombstones—the great walls of Uruk. I would however suggest a simple solution: if we wish to make something permanent outside the protected environment, we should make it capable of reproducing itself, i.e. of creating a certain form of life. Even if artists don't become gods, art actually doesn't stand very far from this mechanism of its own reproduction. Compared to any sort of materialization, the best way for any information to survive is to remain relevant and thus be passed from generations to generations.

Tomáš Kajánek's work *Automated Youtube Click #1* is a recording of a fatal car crash of two Czech teenage girls, who at the time of the collision were recording an online live stream with their phone. Although the video was not originally meant for the general public, the recording became viral. Despite the effort of the victims' families to remove the video from the public eye, the recording is perpetually reuploaded and thus made available to the public by the anonymous and ungoverned community of users. Kajánek's work consists only of a program that moves the cursor and clicks the play button in the YouTube interface over and over again.

In *Automated Youtube Click #2–#7,* Kajánek presents formal yet disturbing similarities between seminal works of performance art and shocking strategies that some youtubers developed in the atmosphere of pure attention economy without any of the moral backup that art provides. One of the videos, where the programmed cursor clicks play ad infinitum, is from a YouTuber calling himself "Psychopat". In this particular episode, he pays a homeless alcoholic man called Majsner a vacation trip to Dubai, cynically streaming their adventures that are mainly reduced to his fellow's endless drunk humiliations. Although Majsner dies in one of the later episodes, Psychopat's monstrous channel of streamed abuse continues, with 205K followers to date.

Artists like Santiago Sierra tested the limits of what desperate people do for money in a similar spectacle. In works such as *160 cm line tattooed on 4 people,* Sierra paid four heroin-addicted prostitutes to have a horizontal line, which measured 160 cm in total, tattooed on their backs. But the crucial, however banal difference on Sierra's YouTube channel, aside the 1,55K subscribers, is that the institution of art is presented as an "as-if" space. This space, which exists at the intersection of politics, law, and science, and stands on the fundamental aesthetic distance that has formed sometime during the division of autonomous

disciplines in early modernity, provides artworks with a constitutive nature that lies between a thing and a sign.

The task is thus not to create a new kind of art object, for at the most elementary level, no art object exists outside of an exhibition. I consider exhibition as a specific mechanism that is based on showing something as if it would be showing itself, but in fact, it was prepared for this showing by someone who is not trying to hide their intentions. In this sense, the exhibition is a form, but in a different sense, it is also an apparatus[05]—an optical regime that contains its own history, specifically as it allowed modernity to naturalize certain abstract categories, such as science, nature, history or race, precisely via establishing certain modes of seeing.

Exhibition in this sense also became the main artistic medium that does not require a gallery space at all, as can be seen from the proliferation of pop-up exhibitions that exist only as their own documentation. However, I insist on the necessity of the actual act of both staging and, in this way, also relating to the history of the medium, which creates this double reflection, a small distance between what we see and how it is meant that consequently creates the fundamental distance between Santiago Sierra and Psychopat, even if both of them present an edited representation of reality. Therefore, the question is not how we can create a new nature of art out of the gallery space, but rather how we can preserve this specific space of aesthetical distance if galleries cease to exist. And even more importantly, what role does art play in a society that will eventually have to step away from its fundamental categories that are all excessively based on politics of seeing.

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05 NORMAND, V., "Apparatus and Form: The Split Identity of the Exhibition", in: GARCIA, T. & NORMAND, V. (eds.), *Theater, Garden, Bestiary, A Materialist History of Exhibitions,* Sternberg Press, 2019, p. 93.

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